

REQUEST FOR PROPOSAL

147-RT

Pavement Data Collection & Evaluation

**There will be a mandatory pre-proposal
conference for this solicitation.**

**Offeror Registration: In order to receive
an award you must be registered Offeror
with VDOT and eVA.**

Virginia Department of Transportation





REQUEST FOR PROPOSAL

Issue Date: September 8, 2006

RFP# 147-RT

Commodity Code: 96862 PAVEMENT DATA COLLECTION SERVICES

Issuing Agency:

Commonwealth of Virginia
Virginia Department of
Transportation VDOT
1401 E Broad Street
Richmond, Virginia 23219

Hand Deliver Offers to (FEDX,

UPS, DHL, or USPS etc.):
VDOT Central Office ASD
(Bid Tab)
1201 E Broad St.
Richmond, VA 23219

Mail Offers To:

VDOT Central Office ASD
(Bid Tab)
1401 E Broad St.
Richmond, VA 23219

Location Where Work Will Be Performed: Statewide

Initial Term of Contract: Term: 1 year Renewals: 2, 1-year options

Sealed Proposals Will Be Received Until: Time: 10:30AM Date: October 5, 2006

All Inquiries For Information Should Be Directed To:

Via e-mail at: Rachel.Turner@VDOT.virginia.gov

Rachel Turner

Via Phone at: 804-371-6731

NOTICE: It is the Offerors responsibility to ensure that offers in response to this Request for Proposal are received at the above address (the address for "HAND DELIVER OFFERS TO:") prior to the due date and hour shown. If the Offeror elects to use a private express courier (FEDX, UPS, DHL, etc.) or USPS for the delivery of their response to this Request for Proposal, it is the Offerors responsibility to ensure their response is delivered to the "HAND DELIVER OFFER TO:" address. Offers must be sealed, with the RFP number due date and time shown on the face of the envelope, including any special delivery envelopes.

In compliance with this Request For Proposal and to all the conditions imposed therein and hereby incorporated by reference, the undersigned offers and agrees to furnish the Goods/Services in accordance with the attached signed Proposal or as mutually agreed upon by the subsequent negotiation.

Name and Address of Firm:

_____	Date: _____
_____	By: _____
_____	(signature in ink)
_____	Name: _____
_____	(type or print)
FEI/FIN NO. _____	
Telephone #: _____	Fax #: _____
E-Mail _____	

***PRE-PROPOSAL CONFERENCE:** A mandatory pre-proposal conference will be held on

September 20 th , 2006	at the VDOT Asset Management Division 6600 W. Broad Street, Richmond VA 23233	(Reference: Section VII herein).
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Time: 1:00PM

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I. PURPOSE

The Virginia Department of Transportation (“VDOT”), an Agency of the Commonwealth of Virginia, is issuing this Request for Proposal (“RFP”) to solicit offers from qualified firms or a team of firms offering as a single entity (the “Offerors”), to supply statewide services to gather, evaluate and assemble annual pavement condition data for interstate, primary and selected secondary pavement sections in the Commonwealth of Virginia.

II. BACKGROUND

The objective of automated pavement condition data collection and analysis is to provide and update a database of pavement condition information for use in the management of VDOT pavements. The components of that database are the appropriate location-reference landmarks, the various pavement surface distresses, and the elements of longitudinal and transverse pavement profiles as set forth in this document. The successful Offeror shall have the demonstrated capability of efficiently collecting pavement condition data through laser and digital camera equipped automated collection equipment and of automatically (or a combination of manual and automatic) reducing images and quantifying visual pavement distresses from the digital images captured on a highway network of comparable size to Virginia.

III. STATEMENT OF NEEDS

The selected Offeror shall have proven experience in accomplishing pavement data collection, evaluation, and related services. The selected Offeror shall provide the following services:

1.0 General

It is anticipated that vendors will employ proven, state-of-the-practice technologies in the capture and analysis of pavement data. As a minimum, those technologies will involve digital imaging of pavement surface and shoulder, and laser measurement of longitudinal and transverse profiles. It is to be noted that quality assurance and personnel requirements are part of this RFP.

2.0 Standards

2.1 General Standards:

2.1.1 Units of Measurement: Except as otherwise agreed to by the VDOT Project Manager, the system of measurements to be employed in pavement data collection and analysis shall be the U.S. Customary. The vendor will be expected to make measurements in U.S. Customary units to avoid errors associated with conversion between systems. Distance measurement instruments (DMIs) on data collection vehicles must measure directly in U.S. Customary units.

2.1.2 Terminology: Pavement terminology applicable to this standard shall be as defined in ASTM Standard E867-04

2.2 Existing Distress Data Collection Methodology: VDOT initiated an automated pavement surface condition data collection program in 1995. Recognizing that pavement imaging technology was in a state of evolution and that there is no industry-wide standard for imaging and post processing methods, VDOT has invested significant resources over the last few years and partnered with several data collection vendors to learn and jointly mature that technology and has customized/updated that approach for incorporation into VDOT’s pavement management strategy. Accordingly, VDOT will require that the data collection and post processing approach employed by prospective Offerors be consistent,

repeatable, and compatible with VDOT's current approach as specified in this RFP.

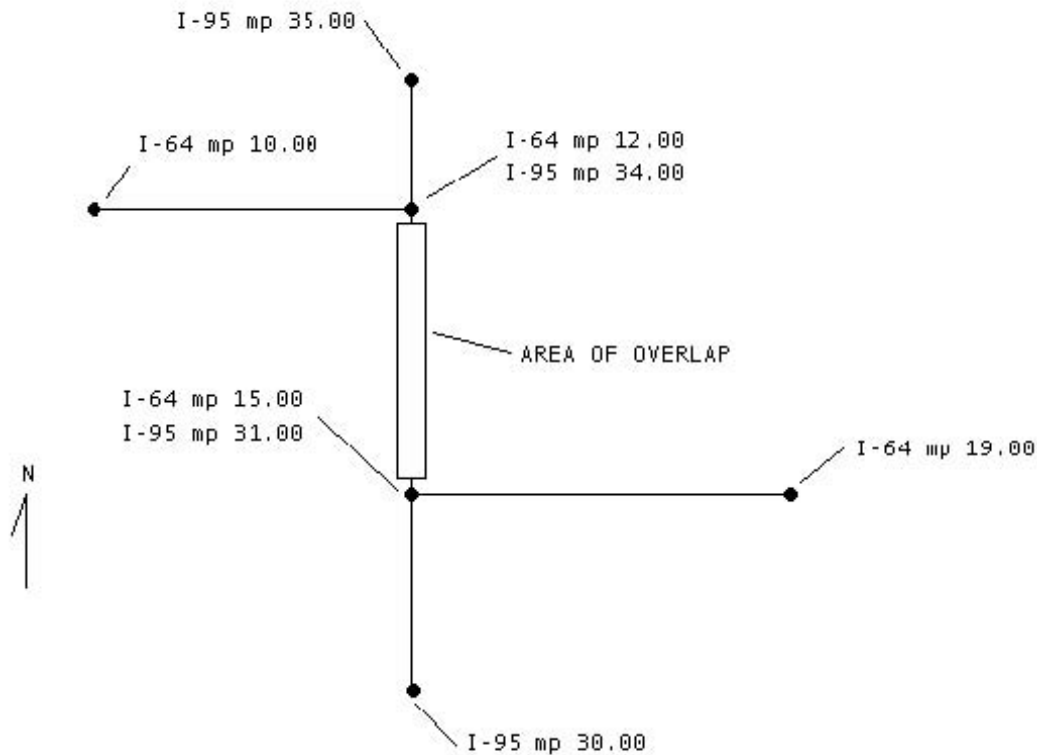
2.3 Location-Reference System

2.3.1 **Asset Management Location Referencing System:** The Asset Management System uses route and mile-point for identifying pavement locations. The mile-points are either route-relative or county-relative locations. The route-relative mile-point is zero at southern or western termini of the route in the state and increases north or east depending on the ordinal direction of the road. The county-relative mile-point is similar but resets the mile-point to zero each time the road crosses a county line. The county-relative mile-point references are converted from the node-offset referencing method as reports are being generated or data is being viewed on-screen. The county relative mile-point system will be used as the linear referencing system for data collected by the vendor.

2.4 Section Condition Data Summarization Requirements

2.4.1 All pavement condition data shall be summarized in one-tenth (0.10) mile sections starting at the mile-point 0.00 beginning at state or county boundaries. Mile points shall increase from south to north and west to east depending on the assigned direction of the route. Where data are to be collected in only one direction the data collection vehicle shall travel in the direction of increasing mileposts. Where it is necessary to run against mileposts the data are to be reported as if run in the direction of the mileposts. Therefore, the "to" milepost will always exceed the "from" milepost. The tenth mile sections will be broken at corporate limits, overlaps of higher priority routes, and the next county boundary. At each break of this type, the last section length will be less than one-tenth mile, that length dependent on the distance from the last even one-tenth mile section to the break point. When the end of the break is reached, regardless of the jurisdictional relative mile-point, a new pavement sectioning of one-tenth mile increments shall begin. Figure 1, below is an example of how VDOT deals with route overlap. The standard is that when two or more routes run concurrently on the same location, mileposts are assigned to the higher classed route. If routes of the same class run concurrently, mileposts are assigned to the lower route number.

Figure 1: VDOT's identification of overlap



VDOT would have the above noted AREA OF OVERLAP reported as I-64 mp 12.00 to 15.00 with the corresponding I-95 mp 31.00 to 34.00 blank

2.4.2 Distress condition data from Bridges, Construction Zones, Detours, etc. shall not be used in calculating one-tenth mile averages and other statistics. However, the roughness data shall be captured and made available to VDOT for other asset management purposes. The Contractor shall report the location of construction encountered during data collection that affects the data collection process.

2.5 Data Reporting Format:

2.5.1 The summarized condition data shall be placed in Microsoft Access database files (or compatible) with the database structure given in attachment "Data Delivery Format" in Section XII. The data shall be delivered in conformance with this structure that is dependent upon pavement type (BIT/BOJ/BOC/CRC/JCP). For reporting the beginning and ending mile points of bridges, the pavement type field in attachment "Data Delivery Format" should have a "BR" and the mile points will be listed in thousandth increments as indicated in Paragraph 2.8.1 below. Pavement type designations are based on the existing pavement surface as follow:

BIT: Asphalt Concrete Pavement
BOJ: Asphalt Concrete Overlay over Jointed Concrete Pavement
BOC: Asphalt Concrete Overlay over Continuously Reinforced Concrete Pavement
CRC: Continuously Reinforced Concrete Pavement
JCP: Jointed Concrete Pavement

- 2.6 Condition data shall be collected at or near the posted highway speeds and in conformance to all applicable traffic laws in the Commonwealth of Virginia. The Contractor shall not impede the flow of traffic at any time.
- 2.7 **Deliverable No. D-1:** The Contractor is required to provide a complete and detailed work plan, in Microsoft Project 2003 format, that addresses pavement data needs outlined in this RFP, within 5 days of receiving the Notice to Proceed. The plan must contain, as a minimum, well-identified milestones and the activities considered necessary by the Vendor and VDOT to achieve those milestones. The plan shall address all deliverables required by this RFP. The VDOT Project Manager shall approve this work plan prior to the beginning of work. Also, weekly and monthly status reports will be submitted to the VDOT Project Manager to closely monitor and demonstrate that the project is on schedule and that the data collected conforms to VDOT requirements.
- 2.7.1 The work plan shall address as a minimum the details in the Statement of Needs, sections 4.0, 5.0, 6.0, 7.0 and 8.0 and shall provide a thorough description of the Offeror's staffing and equipment plan. In addition, the work plan will describe the Offeror's vision of the project and for accomplishing the work on time.
- 2.7.2 The contractor shall provide delivery dates for all deliverables identified in Table 9. The contractor shall establish delivery dates for milestones which will be defined by an entire district's data by system.
- 2.8 General Quality Requirements: Anticipated Standard Operating procedures (SOPs) are summarized in Table 9. After approval written by the VDOT Project Manager, VDOT will monitor compliance with these SOPs and may require re-calibration and an equipment assessment if adverse events occur.
- 2.8.1 Bridge Start and End Locations: Consistent with the provisions of Paragraph 2.5 above the Contractor shall report all bridge start and end locations to the nearest one thousandth (0.001) mile in county-relative mile-points as an aid in quality assurance of the Location Referencing System.
- 2.8.2 Multiple Vehicles: If the Contractor uses two or more vehicles to collect the data, all vehicles and equipment shall employ the exact same technologies and configurations of those technologies. The VDOT Project Manager must approve any proposed non-conforming vehicle prior to its use in data collection.
- 2.8.3 Equipment Adjustments and Repairs: The Contractor shall provide training to equipment operators to recognize equipment malfunctions. When malfunctions do occur, all adjustments and repairs shall be brought to the attention of the VDOT Project Manager as a part of the weekly report. The VDOT Project Manager may require recalibration of repaired equipment.
- 2.8.4 **Deliverable No. D-3, Quality Control Plan:** The Contractor shall develop and execute a Quality Control plan for the collection and processing of data items. The plan shall include personnel certification training, the validation of

equipment accuracy and precision, daily quality control procedures, and on-going quality control procedures. The plan shall include the establishment and use of appropriate limits of variation of each data item. A critical element of the plan shall be the establishment of statistically valid precision and bias limits including the actions to be taken whenever those limits are exceeded. The VDOT Project Manager shall approve the Quality Control plan.

- 2.8.4.1 **Precision and Bias:** The Precision and bias terms used in this document are as defined by ASTM (ASTM E177-90a (2002), Standard Practice for Use of the Terms Precision and Bias in ASTM Test Methods). In general, bias refers to systematic error against an independent measure and precision refers to variability of the data item in question. The Contractor must submit statements of precision and bias practically achievable for each sensor data item separately. The VDOT Project Manager must approve those statements prior to the collection of production data. Precision and bias limits of 5% will be assumed for sensor data items not otherwise documented by the Contractor. In the determination of bias, 'ground truth' will be as specified by VDOT on sites identified in the Quality Control Plan.
- 2.8.4.2 **Calibrations:** The Contractor shall provide a weekly equipment calibration schedule and maintain a record of the calibrations carried out during the project. The calibration schedule and record shall be furnished to the VDOT Project Manager on a weekly basis to demonstrate that the equipment is collecting within accepted variances. No payment shall be made for condition data collected without the support of the weekly calibration data. The VDOT Project Manager must approve deviations outside the range of expected variances provided later in this document. Calibration details shall be identified and included in the Quality Control Plan.
- 2.8.5 **Deliverable No. D-5, Adverse Weather Conditions SOP:** VDOT shall reserve the right to require stoppage of data collection if it deems that weather conditions will adversely affect data quality. The contractor shall provide to VDOT a SOP that addresses adverse weather conditions.
- 2.8.6 **Deliverable No. D-4, Data Collection (SOP):** The contractor shall provide to VDOT standard operating procedures for commonly occurring events and tasks during data collection and processing. These will include (but not be limited to) procedures to be used in the event of major mechanical or electronic repairs to data collection vehicles - such as re-calibration activities, slow and high-speed roughness collection, etc.
 - 2.8.6.1 **Location-Reference Acceptance Criteria:** Contractor reported landmarks shall be evaluated through a random sampling process wherein the reported and HTRIS landmarks shall be compared. In the absence of proof to the contrary HTRIS references are considered to be "ground truth". In the case of disputed locations the VDOT Project Manager shall be the arbiter. The location-reference data shall be accepted when 90% of the reported landmarks are within 0.01-mile of ground truth for sections less than one-mile in length and within 0.05-mile for sections one-mile or greater in length. The Contractor is urged to make location-reference compliance a part of the initial data screening process as data not meeting these criteria will not be further evaluated by VDOT for pay purposes.
- 2.8.7 **Deliverable No. D-6, Initial Data Screening SOP.** The contractor shall provide

an initial data screening (filtering) methodology designed and configured to ensure that unreasonable data are not processed or reported. As a minimum, this methodology shall ensure that required data fields have been populated and that the data are within ranges deemed realistic for the parameters measured. Suggested ranges, based on a nominal section length of 1/100-mile (52.8-feet) are provided in Table 1. If the data is rejected for more than 10% of the length of the homogeneous section, the data shall be re-collected and re-processed by the vendor for the entire homogeneous section, at no cost to VDOT.

Table 1: Expected Data Ranges

Parameters	Low		High	
	Reject	Investigate	Investigate	Reject
IRI	< 0	< 30 in./mile	> 300 in./mile	> 500 in./mile
Rut	< 0	n/a	> 1 in.	> 2.5 in.
Speed	Vehicle dependent – follow contractor’s SOP			

3.0 Scope of Work

3.1 Pavement Assets: For this RFP, a pavement asset is defined as any homogenous pavement section. Homogeneous means the pavement cross-section is of substantially the same materials and geometrics throughout the section as identified by VDOT. A list of all the homogeneous pavement sections is provided in Section XII, attachments “Inventory of Interstate Primary Flexible Pavement Sections and “Inventory of Interstate and Primary Rigid Pavement Sections.” for the prospective Offerors. This list will be available on-line or can also be supplied electronically upon request. This file is the basic database for the collection and summarization of pavement distress and sensor measurements.

3.2 Pavement sections for annual evaluation shall consist of:

3.2.1 All asphalt surfaced interstate highways, totaling approximately 1,923 directional miles, statewide, as listed in Section XII, attachment “Inventory of Interstate Primary Flexible Pavement Sections.”

3.2.2 All asphalt surfaced primary highways, totaling approximately 12,222 directional miles, statewide, as listed in Section XII, attachment “Inventory of Interstate Primary Flexible Pavement Sections.”

3.2.3 All concrete surfaced interstate highways, totaling approximately 371 directional miles, statewide, as listed in Section XII, attachment “Inventory of Interstate and Primary Rigid Pavement Sections.”

3.2.4 All concrete surfaced primary highways, totaling approximately 152 directional miles, statewide, as listed in Section XII, attachment “Inventory of Interstate and Primary Rigid Pavement Sections.”

3.2.4 Selected asphalt surfaced secondary roads, totaling approximately 7700 directional miles, statewide, as listed in Section XII, attachment “Inventory of Secondary Flexible Pavements Sections.” This amount of mileage represents approximately 20% of the secondary system highway mileage and shall be collected so that the entire secondary network has been evaluated during the five year contact period.

3.3 Highway Pavements to be surveyed: As indicated in 3.1 and 3.2 above, the “Homogenous Sections” listing will constitute the portions of the VDOT interstate, primary and the secondary system identified for pavement distress evaluations and sensor

measurements. VDOT reserves the right to increase or decrease these mileages by as much as 25% at any time before the completion of field data collection.

3.4 Deliverable No. D-2, Data Collection Startup Process and Evaluation:

3.4.1 The contractor must undertake a pavement data collection start-up process annually. The startup process must be finished (including VDOT review) before each year's production data may be collected.

3.4.2 The start-up process must include the following: An initial pavement data collection/processing validation, verification and calibration exercise shall be carried out on not more than 20 roadway sections selected by VDOT. During this exercise, precision and bias tests will be conducted for all data items. In addition, calibration procedures, camera angles and coverage, data calculation methods and standard operating procedures will be verified. All start-up work shall be reported to VDOT at one time in a well documented concisely written report.

3.4.3 The VDOT Project Manager must approve the start-up report and its findings in writing before future work is undertaken. No payment will be provided for production data collected or analyzed prior to approval of the start-up report.

3.5 Data Collection Direction: Pavement condition data shall be collected for both directions of travel on all highways that are divided. For undivided highways of four or more lanes, the same rule shall apply. However, for the undivided roads having less than four lanes (total in both direction) condition data shall be collected in the 'prime' direction only, i.e.: northbound for routes designated north/south and eastbound for routes designated east/west.

3.6 Data Collection Lane: Condition data shall be collected for the right-most travel lane (not including turning, acceleration, or deceleration lanes) unless otherwise directed by VDOT staff in the "homogenous sections" listing (attachments "Inventory of Interstate Primary Flexible Pavement Sections", "Inventory of Interstate and Primary Rigid Pavement Sections," or "Inventory of Secondary Flexible Pavements Sections"). For rating of paved shoulders see section 7.1.5

3.7 Pavement Asset Condition Data Units of measurement: Pavement data collection shall be measured in units of "directional mile." Paragraph 3.5 identifies the data collection direction. Directional-miles and other units of measurement are defined in Table 3:

TABLE 3 - UNITS OF MEASUREMENT

Highway Type	Definition
Interstate	1 reading in each direction, outside thru-lane (equals 2 directional miles per mile of roadway) and includes adjacent shoulder.
Primary	1 reading in each direction for divided roadways (equals 2 directional miles per mile of roadway) and includes adjacent shoulder. 1 reading in primary direction for undivided, outside thru-lane (equals 1 directional mile per mile of roadway) and includes adjacent shoulder.

Secondary	1 reading in each direction for divided roadways (equals 2 directional miles per mile of roadway) and includes adjacent shoulder. 1 reading in primary direction for undivided, outside thru-lane (equals 1 directional mile per mile of roadway) and includes adjacent shoulder.
Reversible Lanes	1 reading in each direction for divided roadways (equals 2 directional miles per mile of roadway), and includes adjacent shoulder. 1 reading in primary direction for undivided, outside thru-lane (equals 1 directional mile per mile of roadway), and includes adjacent shoulder.
Shoulders	Included with highway type listed above

4.0 DATA DELIVERY SCHEDULE

Work shall be performed in the months of November 2006 through March 2007. All deliverables shall be received and accepted by VDOT no later than April 15th, 2007 for all the interstate and primary highways and May 15th 2007 for all the secondary highways, each year. Completion is defined as collection, processing (including distress reduction from images), QA, reporting and acceptance by VDOT. A detailed data delivery schedule, with incremental deliverables, must be provided in the Contractor's work-plan subject to change according to award date.

5.0 SENSOR DATA COLLECTION REQUIREMENTS

5.1 General Requirements for Pavement Condition Data Collected by Sensors (IRI and Rutting Faulting Data) are summarized in Table 4. The equipment shall conform to ASTM Designation E1656-94, "Standard Guide for Classification of Automated Pavement Condition Survey Equipment", or latest version.

5.1.1 Real Time Data Monitoring: The Contractor shall have the capability of monitoring sensor data collection and processing in real time in the data collection vehicles. The Contractor shall maintain a monitoring system such that measurement problems will be detected and corrected while still in proximity to data collection sites. As minimum, real time data processing and monitoring are required for IRI and rut depth.

5.1.2 Multiple Data Collection Vehicles: It shall be demonstrated that all vehicles are calibrated to produce between vehicle measurements differences (IRI, rutting data) of 5% or less or as specified in the corresponding specifications in this document.

Table 4 – Sensor Data Requirements

Summary of Data Collection Requirement for Sensor Data		
	Roughness (IRI)	Rut depth
Scope	All pavements surfaces	All asphalt surfaces

	as mentioned in 3.1 & 3.2	
Definition	Longitudinal Profile, both wheel paths	Rutting of each wheel path
Sampling Interval	Max. 6 inches	Max. 10 ft
Calculations & Statistics	IRI (AASHTO Standard PP37-04), each wheel path and average of both wheel paths	Each transverse profile use deeper of both wheel paths and for section report average
Units	inches/mile	inches (nearest 1/100th inch)
Equipment Configuration	Lasers & accelerometers, both wheel paths	Min. 3 lasers each wheel path covering 5 ft of lane around each wheel path (a 5 sensor, 10 ft lane width coverage would be minimum)
Standards	ASTM E950 and HPMS Field Manual Class II	AASHTO Rut Depth Measurement Protocol
Precision & Bias	Contractor to provide	Contractor to provide
Initial Verification	Test section comparison of Longitudinal Profile with VDOT owned equipments.	Test section comparison of transverse profile with VDOT owned equipment.
Ongoing Quality Monitoring	Calibration and Control Section comparisons (both vendor and VDOT)	Calibration and Control Section comparisons (both vendor and VDOT)
Special Requirements	Correct/report low speed sections. Collect bridge IRI, report separately, not included in section summaries	

5.2 Roughness data:

- 5.2.1 Definition: The longitudinal profile of the pavement surface shall be measured on 100% of the length of all pavements for both wheel paths.
- 5.2.2 Sampling: A maximum sampling interval of 6 inches shall be used during longitudinal profile measurement.
- 5.2.3 Calculations and Statistics: The International Roughness Index (IRI) shall be computed from each longitudinal profile using quarter-car simulation. The IRI shall be reported for each wheel path along with the average of both wheel paths as indicated in Table 5. The data will be summarized for each tenth of a mile segment of the roadway and for every homogeneous section, for reporting purposes.

Table 5 – IRI Reporting

Left Wheel Path	Right Wheel Path	Average of Wheel Paths
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- 5.2.4 Units: IRI shall be reported in units of inches per mile to the nearest inch per mile.
- 5.2.5 Equipment Configuration: Longitudinal profiles shall be measured using a profiler equipped with lasers and accelerometers in both wheel paths.
- 5.2.6 Conformance to Standards: Conformance with ASTM Standard Test Method for Measuring the Longitudinal Profile of Vehicular Traveled Surfaces with an Inertial Profiler ASTM E 950-98(2000) and Appendix E of the HPMS Field manual, December 2000 or latest version is required for roughness data and equipment. The equipment shall conform to Class II profiling equipment requirements as specified in the above-referenced HPMS manual.
- 5.2.7 Initial Equipment Verification: IRI values determined with the Contractor's equipment shall be compared with those determined by VDOT on a maximum of 20 locations provided by VDOT at the beginning of the project. IRI calculations shall be performed using profiles as mentioned in University of Michigan, Transportation Research Institute's RoadRuf software, as recommended in AASHTO PP37-04. These comparisons shall be used to verify that the Contractor's equipment meets the requirements specified in Paragraph 5.2.6 above.
- 5.2.8 Special Roughness Requirement: The detrimental effect of low speed on IRI data quality is well known. The Contractor must be able to prove and implement a methodology for handling low speed sections. The equipment shall be capable of measuring IRI within the accuracy requirements specified elsewhere at speed ranges between 15 and 55 mph. For homogeneous sections where speeds fall below 15 mph, the contractor will implement a methodology for taking the low speed portion out of homogeneous section average calculations. If more than 10% readings within a homogeneous section are rejected due to low speed or any other reason, the contractor shall recollect and re-process the data for the entire section. Where extended sections of road cannot be tested between the ranges specified above, the contractor shall attempt to change the time of testing to allow testing at the proper speed. If this is not feasible then the contractor will flag the data as invalid. The contractor shall provide a standard operating procedure (SOP) for low speed section roughness data collection and processing for review and approval by the VDOT Project Manager.
- 5.2.9 **Deliverable No. D-7**, IRI SOP: The contractor shall develop and deliver to the VDOT Project Manager an IRI standard operating procedure which shall address the elements of IRI data collection and reporting and shall be compatible with the contractor's quality control plan, Deliverable D-3. The VDOT Project Manager must approve the IRI SOP prior to the collection of production data.
- 5.2.10 IRI Data Acceptance Criteria: The following steps will be followed to determine the acceptability of the IRI data:
- 5.2.10.1 IRI data shall be checked against the criteria mentioned in Table 1 for initial data screening.

5.2.10.2 The SOP documents identified in the sections 5.2.8 and 5.2.9 must be submitted to the VDOT Project Manager before the start of the production data collection.

5.2.10.3 'Bias' and 'Precision' statistics shall be calculated for the pre-selected control sites (not more than 20 sections) using the data collected by the VDOT-owned equipment and the contractor's equipment. The bias and the precision percentages should be less than 5 or as reported in accordance with section 2.8.5

5.3 Rutting Data:

5.3.1 Definition: Rutting data shall be collected on 100% of the length for asphalt concrete surface pavements. Rut depths shall be collected for each wheel path.

5.3.2 Sampling: Measurements to estimate rut depth shall be made longitudinally at maximum intervals of 10 feet.

5.3.3 Calculations and Statistics: The deeper of the two wheel path ruts from each transverse profile sample shall be used in rut depth calculations. The average of this value for the whole section shall be reported.

5.3.4 Units: The section average rut depth shall be reported to the nearest one-hundredth (0.01) inch. The severity levels shall be reported as percentages of section length to the nearest whole number.

5.3.5 **Deliverable No. D-8, Rut Measurement SOP:** The contractor shall develop and deliver to the VDOT Project Manager a rut measurement standard operating procedure which shall address the elements of rut depth data collection and reporting and shall be compatible with the contractor's quality control plan, Deliverable No. D-3. The VDOT Project Manager must approve the rut depth SOP prior to the collection of production data.

5.3.6 Rut Depth Data Acceptance Criteria: The following steps will be followed to determine the acceptability of rutting data:

5.3.6.1 Rutting data shall be checked against the criteria mentioned in table1 for initial data screening.

5.3.6.2 The SOP documents identified in the section 5.3.5 must be submitted to the VDOT Project Manager before the start of the production data collection.

5.3.6.3 No more than twenty pavement sections with varying amount of rutting will be selected as control sites where rutting data will be collected using VDOT-owned equipments. The contractor will be asked to collect data on these sites before the production level data collection begins. 'Bias' and 'Precision' statistics will be calculated for these sites comparing the data collected by the VDOT-owned equipment and the contractor's equipment. The bias and the precision percentages should be less than 5 or as reported in accordance with section 2.8.5

6.0 VIDEO IMAGE COLLECTION REQUIREMENTS

6.1 General Requirements for Systems used for Capture and Processing of Data with Downward and Forward Perspective Images for Pavement Data Collection.

6.1.1 Image Identification/Location: All digital images and roughness/rutting data

collected shall be synchronized by use of time codes and distance measurements along a highway for positive location identification. All images and data shall be located to the nearest one-thousandth mile (5.28 feet) or better.

- 6.1.2 **Temperature and Moisture Protection:** All exterior mounted pavement digital cameras must be capable of collecting images during normally encountered fair weather conditions in Virginia. This includes, but is not limited to, temperature and moisture conditions that cause fogging and condensation on the camera lens. Camera enclosures shall have heating devices or other means to eliminate fogging and condensation on the camera lens.
- 6.1.3 **Visibility Requirement:** Images shall not be collected during times when the visibility of cracking and other distress forms are continuously obstructed by road conditions. This includes, but is not limited to, snow on the pavement, water on the pavement surface from rain, sand on the pavement surface, and excessive salt stains on the pavement. Locations with unacceptable image quality shall be collected again at no additional cost to the Department.
- 6.1.4 The Contractor shall collect, convert or otherwise store in digital form the images for each roadway. Image resolution shall meet the requirements stated in Sections 6.2 and 6.3.
- 6.1.5 Each image shall be an individual file tagged with a file name corresponding to the county-route-direction-mile-point of the image. It shall be the responsibility of the Contractor to provide for easy and immediate recall of any and all images.
- 6.1.6 **Deliverable No. D-9, Video Imaging SOP.** The contractor shall develop and deliver to the VDOT Project Manager a pavement imaging standard operating procedure which shall address all the elements of pavement image collection and storage and shall be compatible with the contractor's quality control plan, Deliverable No. D-3: The VDOT Project Manager must approve the pavement imaging SOP prior to the collection of production data.
- 6.1.7 **Summary of Pavement Image Acceptance Criteria:** Contractor collected and provided images may be compared with images collected by similar equipment owned and operated by VDOT on the identical section of highway. VDOT's equipment will be considered the ground-truth for comparison purposes. For any identified length of highway, no more than 5 images out of 100 continuous images provided by the Contractor shall be of inferior quality, as determined by VDOT at its sole discretion. For amounts exceeding this tolerance, the contractor may be required to recollect the images for affected sections of highway at no additional cost to the Department.

6.2 Downward Pavement Image Requirements

- 6.2.1 **Downward Perspective Image Resolution:** The Contractor shall collect and capture Downward Perspective Images of the pavement surface to produce a full 14-foot width view of the pavement surface for a visual pavement distress condition evaluation, detailed in Section 7.0. These images shall be collected from downward pointing camera(s), which are orthogonal to the pavement surface. The Contractor must demonstrate that the resultant video image has a resolution to identify cracking of $1/8^{\text{th}}$ inch width when traveling at survey speeds. This shall include the disclosure of equipment specifications, details or other proprietary information needed to support this resolution requirement. The burden of proof for this requirement shall be on the Contractor. No production data shall be collected/processed until image resolution meets the

approval of the VDOT Project Manager. The downward and forward cameras (see forward images in 6.3 below) shall be synchronized such that both simultaneously image the same roadway location.

- 6.2.2 Artificial Illumination of Pavement: The Downward Perspective Image shall be collected with a uniform and consistent form of illumination applied to the pavement surface. The illumination shall be regulated to provide sufficient contrast and crack-shadows for the clear discernment of cracking and patching. Images bearing ambient and/or vehicle shadows that obscure pavement features will not be accepted.
- 6.2.3 The digital downward perspective Image shall show the entire lane width, proportioned to fit on the screen of a monitor.
- 6.2.4 **Deliverable No. D-12, Image Storage Plan:** All digital images shall be stored electronically in a format that offers reliable, convenient and economical mass storage without discernable loss of the specified resolution of the images for future use at workstations and/or distribution on the internet. Within this document, the contractor shall provide the technical details and recommended practices for image management, storage, backup and recovery for VDOT's investment in pavement video and highway imagery.

6.3 Forward Perspective and Right-of-Way (side-view) Image Requirements:

- 6.3.1 Forward Perspective and Right of Way Images: The Contractor shall collect and capture forward perspective and the right of way (representing left and right side views) images from cameras pointed ahead and sideways of the vehicle and mounted either to the vehicle roof or just inside the vehicle. The images shall be displayed to represent an approximately 180-degree field of view of the roadway ahead. The forward perspective Image shall resemble a windshield view of the roadway such that the pavement surface and condition in the travel lane ahead of the survey vehicle shall be captured. The forward perspective image shall have a resolution to identify 1/4-inch wide cracks on the pavement immediately ahead of the survey vehicle when traveling at highway speeds. The right of way images shall be sufficiently clear so that these images can be used to inventory and assess conditions of such roadside assets as guardrails, guardrail terminals, signs, pavement markings and unpaved shoulders. The downward, right of way and forward cameras (see downward images in 6.2 above) shall be synchronized such that all simultaneously image the same roadway location. The contractor may also propose additional camera configurations to capture images along the shoulder to perform a condition rating as identified in section 7.1.5.
- 6.3.2 Lane-shoulder drop-off – **Optional Item No. 1**
The contractor shall propose a method and process to collect lane-shoulder drop-off during the pavement evaluation process. This is an optional data element to be reported along with the other data elements. The rating will be a simple “yes or no” rating based on a drop-off of 2 inches or greater. The collection interval shall be specified by the contractor, along with precision and bias statements. VDOT will consider executing this option annually at its discretion, and may include a portion of the network or entire network as directed by the project manager. This item shall be bid as a separate line item
- 6.3.3 Highway asset inventory data collection – **Optional Item No. 2**
The contractor shall propose a method to gather asset location and inventory data for selected highway assets using the Forward Perspective and Right of

Way Images. The assets to be considered include: traffic signs, guardrail, guardrail terminals, pavement markings and unpaved shoulders. The inventory attributes to be collected for these assets and other relevant technical details are provided in attachment section 15.8 (Random Condition Assessment Manual). The contractor shall propose a cost per directional mile using the images collected as per requirements in 6.3.1, by highway system.

- 6.3.4 **Highway Paved width Inventory data collection – Optional Item No. 3**
Including the work identified in 6.3.2, the contractor shall propose a method and process to record the actual paved width of the highway pavement, from edge-of-pavement to edge-of-pavement. Measurement shall be to the nearest whole foot. The contractor shall propose a cost per directional mile using the images collected as per requirements in 6.3.1, by highway system.

6.4 Image Storage and Usage at VDOT:

- 6.4.1 **Deliverable No. D-10, Image Workstation and Software:** The contractor shall provide, maintain and support in the Asset Management Division a complete workstation and software, of the same configuration and quality used by the contractor's staff for the data collection performed on this project. This includes reliable, cost effective and efficient media for delivery and archival of all video images at this workstation. This workstation and software shall become the property of VDOT at contract termination or close-out. The cost of this item shall be included in the overall cost of the work.

6.4.1.1 The workstation software shall include the capability of displaying all the digital and/or images with the associated database record (indicating the distress quantifications). The software shall also have the capability of incrementing ahead and/or back one frame at a time to scan the roadway images in sequence. The software shall be a user-friendly "point and click" type system. At the conclusion of the contract, the software provided per this section shall be the property of VDOT.

- 6.4.2 **Network Attached Storage for Forward and Right-of-Way Images– Optional Item No. 4**

The contractor shall propose a mass storage device/system to store all Forward and Right-of-Way Images for real-time access at dedicated video-image workstations in the Asset Management Division. The image resolution shall remain at high-quality so as to allow reading highway signs at close range (mile-marker signs, reference posts, street names, VG-4s, etc.) and The system shall be capable of displaying current and past year's images, using a simple user interface, to allow the user to identify the location along the road (in County-route-milepoint or GPS coordinates), cross-sectional offset (measured in feet) and height (measured in feet-inches) of visible roadway features, such as traffic signs, pavement markings, guardrail, pavement width, etc. Highway sections shall be looked up using a tabular entry of County-Route-Mile-Direction or Route-Mile-Direction; or Map based location query. The contractor shall include and provide all hardware, software and support to make this a "turn-key" image viewing and usage solution. This solution shall be scalable to support distribution over local area network at a later date.

- 6.4.3 **Web-hosted Forward and Right-of-Way Images– Optional Item No. 5**
Same functionality and requirements as identified in 6.4.2, but the contractor provides an externally-based web-hosted solution to VDOT.

- 6.4.4 Ramps and Loops Data Collection and Processing – **Optional Item No. 6**
VDOT will not collect or process any ramps and/or loops data in 2007. However, throughout the period of the contract, VDOT may choose to collect video images and collect and process sensor and distress information. The contractor is encouraged to submit a collection and processing price for this option per directional mile of pavement. If/when VDOT decides to exercise this option, the ramps and loops mileage and inventory information will be provided to the contractor.

7.0 PAVEMENT DISTRESS EVALUATION REQUIREMENTS

- 7.1 The contractor will evaluate pavement surface distresses utilizing the downward and forward perspective images:

7.1.1 Distress Items to be collected: The Contractor shall evaluate pavement distresses using the Downward Perspective Images and Forward Perspective Images collected according to section 6.0, above. This work shall be in conformance to the requirements detailed in the manual “A guide to evaluating pavement distress through the use of digital images” (Version 2.0, August 2006) by VDOT. Also, a detailed data deliverable format is assembled in attachment section 16.4 which will be made available online or will be provided electronically upon request. The contractor shall provide the data in this format using the metadata provided for different data elements.

7.1.2 Semi-automated Processing of Distresses: The vendor may propose utilization of a proven, documented, and demonstrated system for the processing of collected distresses. The reduction of images and processing of distresses should be mostly automated and consistent, with limited manual intervention to meet the requirements herein. Moreover, it is desirable that the data reduction takes place as it is being collected, so that a lot of processing time is not required afterwards. This way, glaring mistakes, if any, would be brought to the attention of the person in charge of data collection immediately and necessary corrective actions would be taken.

7.1.3 Reporting: For reporting purposes, all distress and sensor collected data shall be summarized and indices calculated separately for each tenth of a mile of roadway and for every homogenous section as provided by VDOT. For the first table, the distresses will be summarized and the indices calculated for every tenth of a mile and for the second table the same information will be summarized for each homogeneous section. The homogeneous sections are assembled in attachments “Inventory of Interstate Primary Flexible Pavement Sections”, “Inventory of Interstate and Primary Rigid Pavement Sections,” and “Inventory of Secondary Flexible Pavements Sections” which will be made available ‘on-line’ and/ or will be provided electronically upon request.

7.1.4 Quality Control and Data Acceptance:

7.1.4.1 **Deliverable No. D-3, Quality Control Plan:** The contractor shall develop and implement a sensor and distress data assessment quality control plan that shall be approved by the VDOT Project Manager before distress data assessment commences. As a minimum, the quality

control plan shall provide for internal random assessment of the Contractor's work and shall be an integral part of the overall quality control plan for the project, as mentioned in item 2.8.4.

7.1.4.2 VDOT will institute an independent data quality assurance plan that will monitor the Contractor's assessment of pavement distress data. The Contractor is required to cooperate with VDOT in providing such data as required for analysis.

7.1.4.3 The VDOT plan will provide for final statistical acceptance of the Contractor's work based on a comparison of pavement condition indices (LDR and NDR) computed from distress data provided by the contractor (Contractor indices) and distresses determined through VDOT analysis of images provided by the Contractor (VDOT indices). For contractor information, index calculation procedures are available in the procurement library. A data delivery or lot is defined as a delivery of a district's data by system or it can be defined by VDOT as needed and agreed upon by both parties.

7.1.4.4 Distress Data Acceptance Criteria: When 90% of the Contractor and VDOT determined indices for randomly selected homogeneous sections are within 10 points of each other, the lot shall be accepted. When the previous criterion is not met, the burden of proof shall be on the Contractor to make any required adjustments and/or reprocessing and for resubmitting the lot at no additional cost to the Department.

7.1.5 Rating of Paved Shoulders from Forward Perspective and Right of Way Images: The contractor shall be required to collect inventory (width, material type, etc.) and rate paved shoulders along the interstate, primary and secondary highways. The rating methodology would be subjective and the criteria will be provided to the contractor. For paved shoulder ratings, the contractor will not have to utilize the same techniques as analyzing mainline pavement. Such evaluations may be performed manually from forward perspective and right of way images. Details of the metadata for shoulder data delivery are provided in attachment section 16.4.

7.2 Methodology: The Contractor's plan shall address the following distress measurement issues:

7.2.1 The method for distress data collection and evaluation must include distress data processing through automated methodologies augmented with manual techniques, if necessary. The images should be viewable through a video workstation and the quantities of distresses should be recorded in a database, in a format mentioned in Section XII, attachment "Data Delivery Format". The vendor may propose utilization of a proven, documented, and demonstrated system to meet the requirements herein. At a minimum, a methodology description, a cost breakdown and a task schedule must be provided for any data collection method.

7.2.2 The following are the two requirements for distress data reduction:

7.2.2.1 The workstations used by the Contractor for the viewing and evaluation of Downward Perspective Images shall be configured so that video monitors display a full-width image of the pavement surface while maintaining the quality of the image such that a 1/8-inch wide crack is visible as described in Paragraph 6.1.1. This display or composite image will be used for the detailed pavement distress evaluation. If multiple monitors are used at a workstation, the video images must be fully synchronized so that all monitors show the identical location of pavement. The forward perspective image shall be displayed in conjunction with the downward perspective and right of way images to identify pavement distresses not clearly identifiable from the downward perspective Images. The forward perspective and the right of way images must have the resolution prescribed in paragraph 6.1.3. If the forward, right of way and downward cameras are offset on the data collection vehicle, then the display of the forward and the right of way images shall be synchronized with the downward images, such that all images are of the same pavement location (note the last sentence in both 6.1.1 and 6.1.3 above).

7.2.2.2 Distress data shall be processed automatically. Methods shall be used to accurately measure distresses inside and outside the wheel-path and input of length, width, and/or areas of pavement distresses should be consistent with the methodologies mentioned in Section XII, attachments:

A Guide to Evaluating Pavement Distresses Through the Use of Digital Images (version 2.0, August 2006)

Development and Implementation of Pavement Condition Indices for the Virginia Department of Transportation, Phase I, Flexible Pavements

Development and Implementation of Pavement Condition Indices for the Virginia Department of Transportation, Phase II, Rigid Pavements

These documents will be made available ‘on-line’ or will be provided electronically upon request. The processed images will include the polygons encompassing the distresses with dimensions shown on the images. If there are distresses of multiple severity levels, they should be displayed in the images with different colors schemes to make the QA process convenient and easier. The Contractor shall provide a means to positively and accurately evaluate the distress severities required by the previously referenced “A Guide to Evaluating Pavement Distresses Through the Use of Digital Images (version 2.0, August 2006)” manual.

- 7.3 **Deliverable No. D-11**, Distress Data Reduction SOP: The contractor shall develop and deliver to the VDOT Project Manager a distress data collection standard operating procedure which shall address the elements of automatic (and manual, if necessary) reduction of distresses data from digital images and this shall be compatible with the contractor’s quality control plan, Deliverable No.D-3, item 2.8.4. The VDOT Project Manager must approve the distress data reduction SOP prior to the collection of production data.

8.0 CONTRACTOR REPORTING REQUIREMENTS:

- 8.1 The Contractor shall provide the VDOT Project Manager the following information during the collection and/or processing of pavement condition data:
- 8.1.1 Weekly and Monthly reports of all quality checks, calibrations and repairs performed on the equipment used to gather pavement images or data.
 - 8.1.2 Weekly status reports to include the following items, but not limited to: describing work completed, problems encountered, and work planned for the following week. Written weekly status reports shall be submitted each Friday during the production data collection and subsequent processing periods.
 - 8.1.3 Monthly status reports shall detail the progress and status of work completed in each of the nine districts. The monthly status reports shall be due on the first workday of the following month. The following data shall be provided as a minimum:

Table 8 – Minimum Monthly Status Report Data

		Manual		QC/QA	
		Data Collection	Distress Rating	Checks	Estimated
District	Total Miles	Miles Complete	Miles Complete	Miles Complete	Completion Date
1					
2					
3					
...					
9					

9.0 CONTRACTOR PERSONNEL REQUIREMENTS:

- 9.1 Contractor's Personnel: The contractor shall be required to staff the project in a manner such that the desired product can be delivered effectively and efficiently in compliance with the quality requirements imposed above. However, as minimums the Contractor shall have as team members (Resumes shall be provided with proposal):
- 9.1.1 A Pavement Engineer who is experienced in pavement data collection methods (visual, automated methods, road profilers, etc.) and in pavement data collection, analysis, and quality control and assurance. The individual must also have the capabilities to develop training and to train others in the new and evolving technologies associated with pavement data collection and analysis. The pavement engineer must have a working knowledge of pavement systems and an ability to recognize the various pavement types and the limitations of various pavement data items. A minimum of 5 years experience as a highway pavement engineer in a state or national-level capacity is required.
 - 9.1.2 A Pavement Data Collection and Analysis Quality Assurance Manager, who shall plan the pavement data collection and verification process, ensure that data collection methodologies are sound, and verify the

validity and accuracy of collected data. The individual must have a strong background in statistics and be competent in the use of specialized pavement data collection methods including visual and automated distress equipment as well as profilers and specialized data processing work stations. A minimum of 5 years experience in pavement data collection and quality assurance is required.

10.0 DELIVERABLES

The major deliverables to be provided under this contract (including but not limited to) are summarized by Number in Table 9 below. Contractors are encouraged to provide draft/complete copies of these deliverables with the response to this RFP, using work done on other projects.

TABLE 9 - DELIVERABLES

Deliverable No.	Deliverable Name	RFP Reference Section(s)	Included in Payment Item	Remarks
D-1	Work-plan	2.7	Included in Mobilization	
D-2	Startup Report	3.4,13.1,14.2	Included in Mobilization	
D-3	Quality Control Plan	2.8,7.1.4.1	Included in Mobilization	
D-4	Location-Reference SOP	2.3,2.8.9		Includes GPS Coordinate Collection
D-5	Adverse Weather SOP	2.8.7		
D-6	Initial Data Screening SOP	2.8.10		
D-7	IRI SOP	5.2.9		Includes precision and bias statements
D-8	Rut Depth SOP	5.3.5		Includes precision and bias statements
D-9	Pavement Imaging SOP	6.3		
D-10	Image Workstation and Software	6.2		
D-11	Distress Data Reduction SOP	7.3		Includes random sampling plan
D-12	Digital Image Storage Management and Distribution Plan	6.1.5		
D-12a,b,c,.....	Video images with Pavement Condition Data		Delivered and accepted in batches	Number each deliverable in sequence: D-12-a, D-12-b, etc., as needed to define milestones for districts by system
Optional Item No. 1	Lane-shoulder drop-off		Separate line item, additional cost per directional mile	
Optional Item No. 2	Highway asset inventory data collection		Separate line item, broken down highway system (Interstate, Primary & Secondary); cost per directional mile	

TABLE 9 (Continued) - DELIVERABLES

Optional No. 3	Item	Highway Paved width Inventory data collection		Separate line item, broken down by highway system (Interstate, Primary & Secondary) cost per directional mile	
Optional No. 4	Item	Network Attached Storage for Forward and Right-of-Way Images		Separate line item, lump sum	
Optional No. 5	Item	Web-hosted Forward and Right-of-Way Images		Separate line item, lump sum	
Optional No. 6	Item	Video images and ramps and loops and loops condition data		Delivered and accepted by district.	

11. Task Order Procedures (if required by VDOT).

The Contractor agrees to prepare a task order for approval by the Project Manager before any work is begun on a project. Upon negotiation and agreement of the scope of work, the Project Manager will issue a notice to proceed for the task order. The notice to proceed will consist of a purchase order. No work shall be performed without a purchase order from the Project Manager(s) to be designated at contract award. The VDOT will not be responsible for payment for services performed in advance of the purchase order. If field conditions require a modification to the task order, the Project Manager may grant verbal authorization. The Contractor agrees to submit a revision or modification to the task order within five (5) business days of the verbal authorization.

The estimated level of effort for each task will be determined as the Contractor develops a detailed task order. The detailed task order must be accepted by VDOT before performing any work on a given task. The Contractor and VDOT are expected to negotiate the tasks and the timeframes for the completion of each task.

All work associated within the contract will be conducted within an approved task order. Task orders will not be issued unless funding for the work has been identified and is available. Each task will have a written scope, budget, and authorization agreed to by the Contractor and the Project Manager. The Contractor is fully expected to complete the scope of work within the agreed upon budget. The Contractor will not be compensated for unauthorized cost overruns.

Equipment purchases deemed necessary for successful completion of the task orders under this contract will be permitted with prior approval of the Project Manager. The Contractor will be required to demonstrate to VDOT that it has complied with the Commonwealth's Procurement Policies and contacted the required number of sources, to include DBE and SWAM sources, to obtain the best price for equipment that meets the agreed upon requirements prior to initiating any equipment purchase.

Specialized studies and analyses determined necessary by the Project Manager, but beyond the capabilities of the Contractor and/or the team's Subcontractors, may also be obtained where necessary and given prior approval by the Project Manager. The Contractor, likewise, will be required to demonstrate to VDOT that it has evaluated several vendors (if such exist) to obtain the best price and value for these Direct Cost services, in advance of contracting for such services.

IV. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. General Requirements

1. In order to be considered for selection, Offerors must submit a complete response to this RFP. One (1) original and five (5) copies of each proposal shall be submitted to VDOT. The Offeror shall make no other distribution of the proposal.
2. An authorized representative of the Offeror shall sign proposals. All required information should be submitted. Failure to submit all required information may result in VDOT requiring prompt submission of missing information and/or giving a lowered evaluation of the proposal. Proposals that are substantially incomplete or lack key information may be rejected by VDOT. Mandatory requirements are those required by law or regulation or are such that they cannot be waived and are not subject to negotiation.
3. All information requested by this RFP on the ownership, utilization and planned involvement of small businesses, women owned business and minority owned business must be submitted. If an Offeror fails to submit all information requested, VDOT may require prompt submission of missing information after receipt of vendor proposals.
4. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.
5. Other proposal format requirements include:
 - A. 8½ x 11 inch page size (larger pages are allowed for figures or tables, but they must be folded into the overall proposal and used sparingly)
6. Each copy of the proposal should be bound or contained in a single volume where practical. All documentation submitted with the proposal should be contained in that single volume.
7. Ownership of all data, materials, and documentation originated and prepared for VDOT pursuant to the RFP shall belong exclusively to VDOT and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by an Offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act provided the Offeror invokes the protections of Section 2.2-4342F of the Virginia Public Procurement Act, in writing, either prior to, or upon submission of the data or other materials. The written notice must specifically identify the data or materials to be protected and state the reasons why protection is necessary. The proprietary or trade secret material must be identified by some distinct method such as highlighting or underlining and must indicate only the

specific words, figures, or paragraphs that must constitute trade secret or proprietary information.

8. The classification of the entire proposal document, line item prices, and total proposal price as proprietary or trade secrets is not acceptable and will result in rejection and return of the proposal.

B. Specific Requirements

1. Resumes of the Project Manager and other principals that would be assigned to VDOT for this project must be submitted with the response.
2. Names and qualifications of any subcontractors the Offeror proposes to use must be included with the response.
3. Responses must include the following firm information:

Size of firm, equipment and geographic office location(s);
Number of employees;
Ownership and availability of equipment (include relevant specialized equipment such as low pressure tracked equipment);
Location of offices, employees and equipment.
4. Experience of Offeror: response must include general background, experience of the Offeror and a list of any subcontractor(s) proposed for this project. Indicate the length of time the firm has been in business and the length of time each subcontractor has been in business providing similar types of services required in this RFP.
5. Submit five (5) references, if possible, for whom you have provided services similar to those required in this RFP for the past three (3) years. A contact name, address and telephone number must be provided for each reference.
6. Response must include a list of accounts lost in the past 3 years and the reason the accounts were lost.
7. Qualifications of Offeror and Offerors personnel: General relevant background qualifications of the Offeror and any subcontractor(s) must include licensing, credentials and certification information of the firm or the firms' personnel. Copies of licenses, credentials and certifications of key personnel assigned to VDOT must be included with the response.
8. Describe the project management methodology, staffing structure, and key personnel that would be providing management oversight for VDOT.
9. Offeror is to clearly identify the name of the person who will be the primary contact person with VDOT and a back-up or alternate.
10. Provide a written narrative explaining your firms proposed general approach to providing the services requested on a statewide basis. Also, describe the proposed approach to manage a statewide contract with

multiple, varied, and concurrent tasks.

11. Additional Information: This section is to allow firms to convey information of their choosing, such as intangibles, availability of the firm, miscellaneous credentials, certifications or licenses (i.e. pesticide applicator license) and other information relative to VDOT's stated needs.

12. A Certificate of Insurance ("COI") must be included with the response.

The firm or firms awarded a contract from this RFP must be willing to add the following language to their Insurance:

"For the purposes of this contract, The Commonwealth of Virginia, Department of Transportation, shall be an additional insured and so endorsed to the policy or policies listed above."

13. Cost: Indicate your price as requested on the Price Schedule (Section XI).

14. Small, Women-Owned and Minority ("SWAM") Business Participation (Attachment C).

It is the policy of the Commonwealth of Virginia to contribute to the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in State procurement activities. The Commonwealth of Virginia encourages Offerors to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, or other contractual opportunities. By submitting a proposal, Offerors certify that all information provided in response to the Request for Proposals is true and accurate. Failure to provide information required by this Request for Proposals will ultimately result in rejection of the Proposal.

Attachment C of the RFP (Small, Women Owned and Minority ("SWAM") Business Participation is to be completed and submitted with the proposal.

15. Firms must include their policy of equal employment.
16. The return of the RFP cover sheet and all addenda acknowledgements, if any, signed and filled out as required.

V. EVALUATION AND AWARD CRITERIA

A. Evaluation: Proposals shall be evaluated by VDOT using the following criteria:

1. Successful experience in similar works with Local, Municipal, State, or Federal government
2. Qualifications of Offeror (and any subcontractor's) to include personnel and project management methodology;
3. Technical Approach to providing the services statewide and additional information provided, which may include special certifications or licenses, as well as specialized equipment of the Offeror;
4. Cost as per the pricing schedule;

5. Small, Women & Minority Business Participation;

POINTS will be posted not later than the date/time set for receipt of proposals.

Each Offeror's total proposed cost will be evaluated using the following formula:

$$\frac{(\text{Lowest price offered})}{(\text{Price of offer being evaluated})} \times (\text{Cost points available}) = \text{Cost points assigned to Offerer being evaluated}$$

B. Oral Presentation

Offerors who submit proposals in response to this RFP may be required to give an Oral presentation of their proposal to VDOT. This provides an opportunity for the Offeror to clarify or elaborate on their proposal. VDOT will schedule the time and location of these presentations if required. Oral presentations are an option of VDOT and may or may not be conducted. Therefore, proposals should be complete.

C. Proposed Procurement Schedule

Issue Date of RFP	September 8, 2006
Pre-Proposal Conference	September 20, 2006
Deadline for receipt of Proposals	October 5, 2006
Oral Presentations (if required) and Negotiations	Week of October 16, 2006
Proposed Contract Award (Dependant upon timing of Oral presentations)	November 1, 2006

D. Award to other than the highest ranking Offeror(s):

Selection shall be made of two or more Offerors deemed to be fully qualified and Best suited among those submitting proposals on the basis of the evaluation factors included in the Request for Proposals, including price, if so stated in the Request for Proposals. Negotiations shall be conducted with the Offerors so selected. Price shall be considered, but need not be the sole determining factor. After negotiations have been conducted with each Offeror(s) so selected, VDOT shall select the Offeror(s) which, in its opinion, has made the best proposal and shall award the contract to that Offeror(s); however, if the contract is up to \$100,000, the contract may be awarded to a reasonably ranked minority or woman-owned Offeror, that is other than the highest ranking Offeror. The Commonwealth reserves the right to make multiple awards as a result of this solicitation. The Commonwealth may cancel this Request for Proposals or reject proposals at any time prior to an award, and is not required to furnish a statement of the reasons why a particular proposal was not deemed to be the most advantageous (*Code of Virginia*, § 2.2-4359D). Should the Commonwealth determine in writing and in its sole discretion that only one Offeror is fully qualified, or that one Offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that Offeror. The award document will be a contract incorporating by reference all the requirements, terms and conditions of the solicitation and the Contractor's proposal as negotiated.

VI. REPORTING AND DELIVERY REQUIREMENTS

A. TASK ORDER REPORTING REQUIREMENTS:

1. Draft and final reports may be required as determined by VDOT in writing. When reports are required the VDOT Project Manager will establish the schedule for submission of the reports. Further, VDOT Project Managers will also establish the number of reports required, the content, and the form and format for submission of the reports. All written documents shall be prepared in electronic format using the Microsoft Office suite of software. All computer-aided drafting products shall be prepared in Micro-Station 8 format.
2. VDOT shall have the right to modify the Contractor's report and/or to require additional elaboration, as it deems necessary, to insure a comprehensive and thorough report as required by the contract and Task Order.
3. The Contractor may be required to participate in meetings and/or oral presentations with persons, organizations, regulatory agencies, or VDOT Districts, as deemed necessary by VDOT.
4. If requested by VDOT, at any time during or at completion of a Task Order, the Contractor shall provide an electronic copy of all reports. All electronic copies of reports, maps, tables, etc. must be in a format that is compatible with existing VDOT software and hardware. Examples of this might include, but not be limited to, Micro-Station, "tiff" and "PDF" files.

B. NOTICE TO PROCEED

1. The Contractor shall strictly adhere to the level of effort and cost as authorized by the ***Notice to Proceed***.
2. No work shall be performed, nor paid for, without written ***Notice to Proceed*** from VDOT, which may be issued after VDOT has made a price reasonableness determination of the Contractor's cost estimate.
3. The Contractor will not be compensated for unauthorized cost overruns; additionally, VDOT will not be responsible for payment for services performed in advance of the ***Notice to Proceed***.

C. SCHEDULE

Where applicable (as may be required in a Task Order), the Contractor will develop a detailed task schedule utilizing MS Project (or other project management software approved in writing by VDOT). Once task activities have been defined, their relationships will be identified, start and end dates set, and budget controls established. Tasks will have specific completion dates for their deliverables. Each task identified in the MS Project schedule will be identified as part of the task order.

D. MEETINGS AND REVIEWS

VDOT may hold an initial conference with the Contractor at a place and time selected by VDOT for the purpose of reviewing the Contractor's schedules, procedures, methods, and to clarify any ambiguities that may then exist. The Contractor's Principal Officer and others requested by VDOT shall attend the conference.

E. PROGRESS CONFERENCES

Progress conferences may be held periodically. The Contractor will prepare and present written information and studies to VDOT so that VDOT can evaluate the progress and

quality of the services being provided. Either party may request a conference be held at the office of the requesting party or at a place that is designated by VDOT. VDOT may also request a conference for the purpose of inspecting the Contractor's operations and services.

F. PROGRESS REPORTS

A Progress Report is required for each individual Task Order, unless the Task Order is of short duration (less than 30-days) or it is otherwise determined in writing by VDOT that a Progress Report is not needed. If required, the Contractor shall prepare and submit the Progress Report to VDOT on a monthly basis using the Microsoft Office suite of software, in a form as approved in writing by VDOT. These progress reports shall be submitted with the Contractor's monthly invoice to the appropriate Natural Resources Project Manager for review. The Progress Reports shall include total authorized funds and expended funds to date. The reports shall summarize all work efforts during the reporting period, specific tasks completed and the dates of such tasks, including personnel and hourly utilization. They shall also discuss any anticipated difficulties and proposed resolution.

G. PROJECT RECORDS AND FILES

1. The Contractor shall maintain the project records and files for each specific Task Order.
2. Project records shall at a minimum include progress reports, meeting agenda and minutes, management plan and schedule updates, project correspondence, field notes, photographs, analyses, and other deliverables.
3. All project records are to be considered the property of VDOT and shall be made available to VDOT staff, on or off premises, for review and audit.
4. Upon completion of the contract, all project records and files shall be delivered to VDOT, or shall be disposed of as directed by VDOT and verified in writing by the Contractor.

H. PERIODIC PROGRESS REPORT (SWAM)

The Contractor shall prepare and submit to VDOT on a monthly basis a Contract Accounting Progress Report, acceptable to VDOT and the SWAM-DBE Report (Attachment E). These progress reports shall be submitted to the VDOT Contract Administrator. Once the review and approval are completed, the Contractor's monthly invoices will be transmitted to the appropriate Central Office staff for processing and payment. The progress reports shall include total authorized funds and expended funds to date. The reports shall summarize all work efforts in the reporting period including personnel and hourly utilization. They shall also discuss any anticipated difficulties and proposed resolution.

The Contractor shall prepare after December 31st of each calendar year and prior to the following January 16th, an Annual Report that summarized their services provided for the calendar year. The report shall be prepared in a format suitable to VDOT that contains, at a minimum, the following data fields:

- VDOT Project Number
- PPMS/UPC Number

- Contractor Tracking Code
- Task Order Notice to Proceed Date
- City/County
- Budget Statement by Task Order
- Amount Authorized
- Amount Invoiced
- Percentage Complete
- Percentage remaining
- SWAM participation

Failure to provide all or a part of this information may result in payment delays or denials.

VII. PRE-PROPOSAL CONFERENCE

There will be a **MANDATORY** pre-proposal conference for this RFP. Please see the bottom of the cover page of this RFP for the date, time and location of the conference. The purpose of this conference is to allow potential Offerors an opportunity to present questions and obtain clarification relative to any facet of this solicitation. The address is 6600 W. Broad Street, Richmond, VA 23230. While firms are required to attend this pre-proposal conference in order to submit a response to this solicitation, attendance is strongly recommended.

Any changes resulting from this conference will be issued as a written addendum to the RFP.

VIII. GENERAL TERMS AND CONDITIONS

For a listing of the General Terms and Conditions, please see Attachment A.

IX. SPECIAL TERMS AND CONDITIONS

For a listing of the Special Terms and Conditions, please see Attachment B. If there is a conflict between the General Terms and Conditions and the Special Terms and Conditions, the Special Terms and Conditions shall govern.

X. METHOD OF PAYMENT

Payments will be made within 30 days after receipt of a properly presented invoice at the Asset Management Division, and following the review and approval of said tasks billed by the VDOT Project Manager. If required, a detailed monthly progress report shall be included with the invoice. Invoices must clearly reference the Contract Number, a detailed list of any products or services delivered, and all applicable tasks for which payment is being requested. The invoice form and content will be in a manner as solely prescribed by VDOT; once the VDOT Project Manager approves the invoice for payment, the invoice shall be forwarded to the VDOT Central Office Contract Manager for payment. No retainage will be held on this contract. Due to the high cost in processing, invoices with totals less than \$500.00 will not be accepted unless they represent the Final Invoice or other valid reasons are communicated to the VDOT Project Manager in writing and approved in writing by the VDOT Project Manager.

No payment shall be provided to the contractor without prior written approval of the VDOT Project Manager.

The contractor may invoice the Commonwealth for the mobilization payment when at least one fully functional data collection vehicle begins work on the startup testing provided in Section 3.4.

The collection, distress evaluation and quality assurance of any additional miles added to the system shall be paid for on a per directional mile basis when the requirements of Sections 5.0, 6.0,

and 7.0 have been met for that data. The pricing structure defined in Section XI shall apply to these mileages.

The contractor may invoice the Commonwealth, at the time when a data delivery lot has been QA checked and accepted by the VDOT Project Manager.

XI. PRICING SCHEDULE (Please see Table 10 – Itemized Prices)

- A. The Offeror may provide a lump sum mobilization cost not to exceed twenty (20) percent of the grand total. This cost shall include the costs of mobilizing the necessary data collection and processing equipment as well as the cost of startup data collection and reporting required in Section 3.4, 5.2.10 and 5.3.6
- B. The Offeror shall provide an itemized cost breakdown for pavement data collection by the “directional mile” (as defined elsewhere herein) of mainline pavement and shoulders and The price shall include the costs of sensor-collected data (IRI, rut depth) and for the collection of linear reference corrected and synchronized forward and downward perspective pavement images. This price (Subtotal 2(a) in Table 10) shall not exceed 40% of the grand total cost in Table 10.
- C. The Offeror shall provide an itemized cost breakdown for pavement data processing by the “directional mile” (as defined elsewhere herein) of mainline pavement and shoulders. The price shall include all costs of distress data reduction on mainline pavements by system and on the shoulders.
- D. The Offeror shall provide an itemized cost breakdown for an independent data quality assurance work of 5% of the mileage selected randomly by district and by system per “directional mile” (as defined elsewhere herein) of mainline pavement and shoulders. This price (subtotal 2(c) in Table 10) shall include the cost of a completely independent data quality assurance by processing and reducing distress data on the above mentioned mileages by systems and on the shoulders.
- E. Payment for data delivery will be based on batches delivered and accepted by the VDOT project manager. A delivery batch shall be no more than a district’s data by system.

Table 10 - Itemized Prices

PAY ITEM	Unit Price		Extension
MOBILIZATION – Section 13.1 (Lump Sum)	\$_____ (Annually)		
PAVEMENT DATA (Per Directional Mile)			
2(a) Data Collection by highway system: Section XLB	No. Directional Miles	Price / Directional Mile	Total

Mainline interstate	2,294		
Mainline Primary	12,374		
Mainline Secondary	7,700		
Shoulders			
Sub-Total (2a)			
2(b) Data Processing by highway system: Section XLC	No. Directional Miles	Price / Directional Mile	
Mainline interstate	2,294		
Mainline Primary	12,374		
Mainline Secondary	7,700		
Shoulders			
Sub-Total (2b)			
2(c) Data QA by highway system: Section XLD	No. Directional Miles	Price / Directional Mile	
Mainline interstate	115		
Mainline Primary	619		
Mainline Secondary	385		
Shoulders			
Sub-Total (2c)			
Grand Total			

Table 10 (continued) - Itemized Prices

Option	Description	Price
Optional Item No. 1	Lane-Shoulder drop offs- price per directional mile	
Optional Item No. 2	Highway asset inventory data collection and processing per directional mile	
Optional Item No. 3	Highway paved width inventory data collection per directional mile	
Optional Item No. 4	Network attached storage for forward and right-of-way images	
Optional Item No. 5	Web-hosted forward and right-of-way images	

Optional Item No. 6	Ramps and loops data collection per directional mile ramps and loops data Processing per directional mile	
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XII. ATTACHMENTS

Attachments, incorporated by reference. These documents will be made available electronically to attendees of the pre-proposal conference. If you wish to receive a copy by mail please contact Martin Krebs, Procurement Task Manager.

A Guide to Evaluating Pavement Distresses Through the Use of Digital Images (version 2.0, August 2006)

Development and Implementation of Pavement Condition Indices for the Virginia

Department of Transportation, Phase I, Flexible Pavements

Development and Implementation of Pavement Condition Indices for the Virginia

Department of Transportation, Phase II, Rigid Pavements

Data Delivery Format

Inventory of Interstate and Primary Flexible Pavements Sections

Inventory of Interstate and Primary Rigid Pavements Sections

Inventory of Secondary Flexible Pavements Sections

RCA Data Collection Manual.

ATTACHMENT A
GENERAL TERMS AND CONDITIONS

1. VENDOR'S MANUAL: This solicitation is subject to the provisions of the *Commonwealth of Virginia Vendors Manual* and any revisions thereto, which are hereby incorporated into this contract in their entirety. A copy of the manual is normally available for review at the purchasing office and in addition, a copy can be obtained by calling the Division of Purchases and Supply (804) 786-3842.

2. CONTRACTUAL DISPUTES: Contractual claims arising after final payment shall be governed by Section 2.2-4363A of the *Code of Virginia*. This claim shall be submitted to the Commissioner of VDOT who will render a decision within 30 days. Contractual disputes arising during the course of performance shall be submitted to the Administrative Services Administrator who will make a decision in 30 working days, which will be final. Vendors will not be precluded from filing a claim at the conclusion of performance as a result of the decision made during the course of contract performance.

3. APPLICABLE LAW AND COURTS: This solicitation and any resulting contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The Contractor shall comply with applicable Federal, State and local laws, rules and regulations.

4. ANTI-DISCRIMINATION: By submitting their (bids/proposals), (Offerors/Offerors) certify to the Commonwealth that they will conform to the provisions of the *Federal Civil Rights Act of 1964*, as amended, as well as the *Virginia Fair Employment Contracting Act of 1975*, as amended, where applicable, the *Virginians With Disabilities Act*, the *Americans with Disabilities Act* and 2.2-4311 of the *Virginia Public Procurement Act*. If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body (*Code of Virginia, 2.2-4343.1E*). In every contract over \$10,000 the provisions in (A) and (B) below apply:

(A) During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona-fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
3. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.

(B) The Contractor will include the provisions of (A) above in every sub-contract or purchase order over \$10,000 so that the provisions will be binding upon each Sub-Contractor or Vendor.

5. ETHICS IN PUBLIC CONTRACTING: By submitting their bids or proposals, Offerors or Offerors certify their bids or proposals are made without collusion or fraud and they have not offered or received any kickbacks or inducements from any other Offeror or Offeror, supplier, manufacturer or Sub-Contractor in connection with their bid or proposal, and they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

6. IMMIGRATION REFORM AND CONTROL ACT OF 1986: By signing their bids or proposals, the Offerors or Offerors certify that they do not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the *Federal Immigration Reform and Control Act of 1986*.

7. DEBARMENT STATUS: By submitting their (bids/proposals), (Offerors/Offerors) certify that they are not currently debarred by the Commonwealth of Virginia from submitting bids or proposals on contracts for the type of goods and/or services covered by this solicitation, nor are they an agent of any person or entity that is currently so debarred.

8. ANTI-TRUST: By entering into a contract, the Contractor conveys, sells and transfers to the Commonwealth of Virginia all rights, title and interest have in and to all causes of the action it may now or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods purchased or acquired by the Commonwealth of Virginia under said contract.

9. MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS: Failure to submit a bid on the official State form provided for that purpose shall be a cause for rejection of the bid. Modification of or additions to any portion of the invitation for bids may be cause for rejection of the bid; however, VDOT reserves the right to decide, on a case by case basis, in its sole discretion, whether or not to reject such a bid as non-responsive. As a precondition to its acceptance, VDOT may, in its sole discretion, request that the Offeror withdraw or modify non-responsive portions to a bid which do not affect quality, quantity, price or delivery. No modification of or addition to the provisions of the contract shall be effective unless reduced to writing and signed by the parties. Failure to submit a proposal on the official State form provided for that purpose may be a cause for rejection of the proposal. Modification of or additions to the General Terms and Conditions of the solicitation may be cause for rejection of the proposal; however VDOT reserves the right to decide, on a case-by-case basis, in its sole discretion, whether to reject such a proposal.

10. CLARIFICATION OF TERMS: If any prospective Offeror or Offeror has questions about the specifications or other bid documents, the prospective Offeror or Offeror should submit a written request to the buyer whose name appears on the face of the solicitation, no later than 5 days before the due date. Any revisions to the solicitation will be made only by addendum issued by the buyer.

11. PAYMENT TO PRIME CONTRACTORS: Invoices for items ordered, delivered and accepted by VDOT shall be submitted by the Contractor direct to the payment address shown on purchase order/contract. All invoices shall show the VDOT contract number and/or purchase order number; social security number (for individual Contractors) or the federal employer identification number' (for proprietorships, partnerships, and corporations).

12. PAYMENT TERMS: Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after delivery of an accepted invoice. This, however, shall not affect offers of discounts for prompt payment in less than 30 days. All goods or services provided under this contract or purchase order, that are to be paid with public funds, shall be billed by the Contractor at the contract price, regardless of which public agency is being billed. The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the *Virginia Debt Collection Act*.

13. PAYMENT TO SUB-CONTRACTOR: A Contractor awarded a contract under this solicitation is hereby obligated:

- A. To pay the Sub-Contractors within seven (7) days of the Contractor's receipt of payment from VDOT for the proportionate share of the payment received for work performed by the Sub-Contractor under the contract; or
- B. To notify VDOT and the Sub-Contractor, in writing, of the Contractor's intention to withhold payment and the reason. The Contractor is obligated to pay the Sub-Contractor interest at the rate of one percent per month (unless otherwise provided under the terms of the contract) on all amounts owed by the Contractor that remain unpaid seven (7) days following receipt of payment from VDOT, except for amounts withheld as stated in B. above. The date of mailing of any payment by US Mail is deemed to be payment to the addressee. These provisions apply to each sub-tier Contractor performing under the primary contract. A Contractor's obligation to pay an interest charge to a Sub-Contractor may not be construed to be an obligation of VDOT.

14. PROTEST OF AWARD: A Offeror or Offeror wishing to protest an award or a decision to award a contract must submit a written protest to the Administrative Services Administrator, VDOT 1401 East Broad Street, Richmond, Virginia 23219, no later than ten (10) days after public notice of award or announcement of the decision to award whichever occurs first. The public notice will be in the area designated for solicitation/proposal and award notices. The protest must include the basis for the protest and the relief sought. Within ten (10) days after receipt of the protest the Administrative Services Administrator will issue a written decision stating the reasons for the action taken. This decision is final unless within ten (10) days after receipt of such decision, the Offeror or Offeror institutes legal action as provided in the *Code of Virginia*.

15. PRECEDENCE OF TERMS: Paragraphs 1-14 of these General Terms and Conditions shall apply in all instances. In the event there is a conflict between any of the other General Terms and Conditions and any Special Terms and Conditions in this solicitation, the Special Terms and Conditions shall apply.

16. SPECIFICATIONS: The material shall strictly conform to all specifications, plans, etc. and current *VDOT Road and Bridge Specifications* unless otherwise stated herein.

17. QUALIFICATIONS OF OFFERORS OR OFFERORS: VDOT may make such reasonable investigations as deemed proper and necessary to determine the ability of the Offeror or Offeror to perform the contract. **Such investigations may include but are not limited to fingerprint-based criminal history background checks, credit checks, legal residence checks, or proof of US citizenship.** The Offeror or Offeror shall furnish to VDOT all such information and data for this purpose as may be requested. VDOT further reserves the right to reject any bid or proposal if the evidence submitted by, or investigations of, such Offeror or Offeror fails to satisfy VDOT that such Offeror or Offeror is properly qualified to carry out the obligations of the contract and to complete the work/furnish the item(s) contemplated therein.

18. TESTING AND INSPECTION: VDOT reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications.

19. ASSIGNMENT OF CONTRACT: A contract shall not be assignable by the Contractor in whole or in part without the written consent of the VDOT Contract Officer indicated in this solicitation.

20. DEFAULT: In case of failure to deliver goods or services in accordance with the contract terms and conditions, VDOT, after due oral or written notice, may procure them from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which VDOT may have.

21. TAXES: Sales to the Commonwealth of Virginia are normally exempt from state sales tax. State sales and use tax certificates of exemption, Form ST-12, will be issued upon request. Deliveries against this contract shall be free of federal excise and transportation taxes. The Commonwealth's excise tax exemption registration number is 54-73-0076K.

22. TRANSPORTATION AND PACKAGING: By submitting their bids or proposals, all Offerors or Offerors certify and warrant that the price offered for F.O.B. destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped. Except as otherwise specified herein, standard commercial packaging, and shipping containers shall be used. All shipping containers shall be legibly marked or labeled on the outside with the purchase order number or the contract number, commodity description and quantity.

23. DELIVERY POINT: Except when otherwise specified herein, all items shall be F.O.B. delivered to any of the locations specified herein.

24. AUDIT: The Contractor hereby agrees to retain all books, records and other documents relative to this contract for five (5) years after final payment, or until audited by VDOT, whichever is sooner. VDOT, its authorized agents, and/or state auditors shall have full access to and the right to examine any of said materials during said period.

25. ADDITIONAL INFORMATION: VDOT reserves the right to ask any Offeror/Offeror to submit information missing from its bid/offer, to clarify its bid/offer, and to submit additional information which VDOT deems desirable, and does not affect quality, quantity, price or delivery.

26. MATERIAL SAFETY DATA SHEETS (MSDS): Prior to award of this contract, the successful Offeror or Offeror shall provide to this print office, within 10 calendar days of the verbal or written request, copies of MSDS for each hazardous chemical/compound offered. Failure to provide such MSDS within the required time frame will be cause for declaring such bid as non-responsive.

27. CANCELLATION OF CONTRACT: VDOT reserves the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon 60 days written notice to the Contractor. In the event the initial contract period is for more than 12 months, the resulting contract may be terminated by either party, without penalty, after the initial 12 months of the contract period upon 60 days written notice to the other party. Any contract cancellation notice shall not relieve the Contractor of the obligation to deliver any outstanding orders issued prior to the effective date of cancellation.

28. CHANGES TO THE CONTRACT: Changes can be made to the contract in any one of the following ways:

- A. The parties may agree in writing to modify the scope of the contract. An increase or decrease in the price of the contract resulting from such modification shall be agreed to by the parties as a part of their written agreement to modify the scope of the contract.
- B. VDOT may order changes within the general scope of the contract at any time by written notice to Contractor. Changes within the scope of the contract include, but are not limited to, things such as the method of packing or shipment and the place of delivery or installation. The Contractor shall comply with the notice upon receipt. The Contractor shall be compensated for any additional costs incurred as the result of such order and shall give VDOT a credit for any savings. Said compensation shall be determined by one of the following methods:
 1. By mutual agreement between the parties in writing; or
 2. By agreeing upon a unit price or using a unit price set forth in the contract, if the work to be done can be expressed in units, and the Contractor accounts for the number of units of work performed, subject to VDOT's right to audit the Contractor's records and/or to determine the correct number of units independently; or

3. By ordering the Contractor to proceed with the work and to keep a record of all costs incurred and savings realized. A markup for overhead and profit may be allowed if provided by the contract. The same markup shall be used for determining a decrease in price as the result of savings realized. The Contractor shall present VDOT with all vouchers and records of expenses incurred and savings realized. VDOT shall have the right to audit the records of the Contractor as it deems necessary to determine costs or savings. Any claim for an adjustment in price under this provision must be asserted by written notice to VDOT within thirty (30) days from the date of receipt of the written order from VDOT. If the parties fail to agree on an amount of adjustment, the question of an increase or decrease in the contract price or time for performance shall be resolved in accordance with the procedures for resolving disputes provided by the Disputes Clause of this contract or, if there is none, in accordance with the disputes provisions of the *Commonwealth of Virginia's Vendors Manual*. Neither the existence of a claim or a dispute resolution process, litigation or any other provision of this contract shall excuse the Contractor from promptly complying with the changes ordered by VDOT with the performance of the contract generally.

29. AVAILABILITY OF FUNDS: By signing this bid the Offeror agrees that VDOT shall be bound only to the extent of the funds available or budgeted for the particular function or which may hereafter become available for the purpose of any resultant contract.

30. SPECIAL DISCOUNTS: (A) During the contract period, if the Contractor offers promotional discounts as a general practice for items available under this contract, with the result that those prices are lower than the prices available under this contract, then the promotional discounts shall be made available to VDOT under this contract. (B) The effective date for price changes/discounts will be the date that the lower prices/discounts were made available to the Contractor's customers generally.

31. DELAYS IN AWARD: Delays in award of a contract beyond the anticipated starting date may result in a change in the contract period indicated in the solicitation. If this situation occurs, VDOT reserves the right to award a contract covering the period equal to or less than the initial term indicated in the solicitation.

32. RECYCLED PRODUCTS: VDOT encourages the use of products which contain recycled materials. Please indicate as a percentage the amount and type of recycled materials contained in each of the products offered.

33. USE OF BRAND NAMES: Unless otherwise provided in this solicitation, the name of a certain brand, make or manufacturer does not restrict Offerors or Offerors to the specific brand, make or manufacturer named but conveys the general style, type, character, and quality of the article desired. Any article which the public body in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. The Offeror or Offeror is responsible to clearly and specifically indicate the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable VDOT to determine if the product offered meets the requirements of the solicitation. This is required even if offering the exact brand, make or manufacturer specified. Normally in competitive sealed bidding only the information furnished with the bid will be considered in the evaluation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid non-responsive. Unless the Offeror/Offeror clearly indicates in its bid/proposal that the product offered is an "equal" product, such bid/proposal will be considered to offer the brand name product referenced in the solicitation.

34. INSURANCE: By signing and submitting a bid or proposal under this solicitation, the Offeror or Offeror certifies that if awarded the contract, it will have the following insurance coverage at the time the contract is awarded. VDOT reserves the right to request a copy of the Certificate of Insurance. The Offeror or Offeror further certifies that the Contractor and any Sub-Contractors will maintain these insurance coverage during the entire term of the contract and that all insurance coverage will be provided

by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

INSURANCE COVERAGES AND LIMITS REQUIRED:

1. Worker's Compensation: Statutory requirements and benefits.
2. Employer's Liability: \$100,000.
3. Commercial General Liability: \$1,000,000 per occurrence. Commercial General Liability is to include Premises/Operations Liability, Products and Completed Operations Coverage, and Independent Contractor's Liability or Owner's and Contractor's Protective Liability. The Commonwealth of Virginia must be named as an additional insured when requiring a Contractor to obtain Commercial General Liability coverage.
4. Automobile Liability: \$1,000,000 per occurrence. (Only used if motor vehicle is to be used in the contract.)

35. DRUG-FREE WORKPLACE: During the performance of this contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each Sub-Contractor or vendor. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor, the employees of who are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

36. SAFETY AND HEALTH STANDARDS: It is a condition of the contract, and shall be made a condition of each subcontract entered into pursuant to the contract, that the Contractor and any Sub-Contractor shall not require any worker employed in performance of the contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to their health or safety, as determined under construction safety and health standards promulgated by the US Secretary of Labor in accordance with Section 107 of the *Contract Work Hours and Safety Standards Act*. The Contractor shall comply with the Virginia Occupational Safety and Health Standards adopted under Section 40.1-22 of the *Code of Virginia* and the duties imposed under Section 40.1-51.1 of the *Code*. Any violation of the requirements or duties that is brought to the attention of the Contractor shall be immediately abated. Additionally at a minimum, all Contractor personnel shall comply with the following, unless otherwise determined unsafe or inappropriate in accordance with OSHA regulations: Hardhats shall be worn while participating in or observing all types of field work when outside of a building or outside of the cab of a vehicle, and exposed to, participating in or supervising construction. Respiratory protective equipment shall be worn whenever an individual is exposed to any item listed in the OSHA Standards as needing such protection unless it is shown the employee is protected by engineering controls. Adequate eye protection shall be worn in the proximity of the grinding, breaking of rock and/or concrete, while using brush chippers, striking metal against metal or when working in situations where the eyesight may be in jeopardy. Safety vests shall be worn by all exposed to vehicular traffic and construction equipment. Standards and guidelines of the current *Virginia Work Area Protection Manual* shall be used when setting, reviewing and removing traffic controls. Flag persons shall be certified according to the Virginia Flagger Certification Program. No person shall be permitted to position themselves under any raised load or between hinge points of equipment without first taking steps to support the load by the placing of a safety bar or blocking. Explosives shall be purchased, transported, stored, used and disposed of by a Virginia Certified Blaster in possession of a current criminal history record check and a commercial driver's license with hazardous materials endorsement and a valid medical examiner's certificate. All federal, state and local

regulations pertaining to explosives shall be strictly followed. All electrical tools shall be adequately grounded or double-insulated. Ground fault Circuit Interrupter (GFCI) protection must be installed in accordance with the *National Electrical Code* (NEC) and current Virginia Occupational Safety and Health Agency (VOSH) regulations. No person shall enter a confined space without training, permits and authorization. Fall protection is required whenever an employee is exposed to a fall six feet or greater.

37. NON-DISCRIMINATION OF CONTRACTORS: A Offeror, Offeror, or Contractor shall not be discriminated against in the solicitation or award of this contract because of race, religion, color, sex, national origin, age, disability, faith-based organizational status, any other basis prohibited by state law relating to discrimination in employment or because the Offeror or Offeror employs ex-offenders unless the state agency, department or institution has made a written determination that employing ex-offenders on the specific contract is not in its best interest. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this contract objects to the religious character of the faith-based organization from which the individual receives or would receive goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

38. eVA Business-To-Government Vendor Registration: The eVA Internet electronic procurement solution, web site portal www.eVA.virginia.gov streamlines and automates government purchasing activities in the Commonwealth. The eVA portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet eprocurement solution either through the eVA Basic Vendor Registration Service or eVA Premium Vendor Registration Service. All Offerors or offerors must register in eVA; failure to register will result in the bid/proposal being rejected.

- a. eVA Basic Vendor Registration Service: \$25 Annual Registration Fee plus the appropriate order Transaction Fee specified below. eVA Basic Vendor Registration Service includes electronic order receipt, vendor catalog posting, on-line registration, electronic bidding, and the ability to research historical procurement data available in the eVA purchase transaction data warehouse.
- b. eVA Premium Vendor Registration Service: \$25 Annual Registration Fee plus the appropriate order Transaction Fee specified below. Eva Premium Vendor Registration Service includes all benefits of the eVA Basic Vendor Registration Service plus automatic email or fax notification of solicitations and amendments,
- b. For orders issued prior to August 16, 2006, the Vendor Transaction Fee is 1%, capped at a maximum of \$500 per order,
- d. For orders issued August 16, 2006 and after, the Vendor Transaction Fee is:
 - (i) DMBE-certified Small Business: 1%, capped at \$500 per order.
 - (ii) Businesses that are not DMBE-certified Small Business: 1% capped at \$1500 per order.

39. SMALL, WOMEN-OWNED AND MINORITY BUSINESS REPORTING:

It is the intent of VDOT to promote the use of small, women-owned and minority owned businesses (SWAM). Where it is practicable for any portion of this contract to be subcontracted to other suppliers, the Contractor agrees to furnish the contract officer for this solicitation a monthly progress report with the following information:

Contract No. _____
Total dollars paid to small business \$ _____
Total dollars paid to women-owned business \$ _____

Total dollars paid to minority business \$_____

40. AWARD TO OTHER THAN THE LOWEST PRICED OFFERORS(S): An award(s) will be made to the lowest responsive and responsible Offerors(s) however; the award may be made to a reasonably priced minority or woman-owned Offeror(s) that is other than the lowest priced Offerors(s) when such purchases are made under a remedial procurement plan established in accordance with guidelines proscribed by the Department of Minority Business Enterprise (DMBE). Evaluation will be based on net prices. Unit prices, extensions and grand total must be shown. In case of arithmetic errors, the unit price will govern. If cash discount for prompt payment is offered, it must be clearly shown in the space provided. Discounts for prompt payment will not be considered in making awards. **The right is reserved to make a separate award of each item, a group of items or all items, and to make an award either in whole or in part, whichever is deemed in the best interest of the Commonwealth.** The State reserves the right to reject any and all bids in whole or in part, to waive any informality, and to delete items prior to making an award.

Revised 6/16/06

ATTACHMENT B SPECIAL TERMS AND CONDITIONS

1. Reporting and Delivery Requirements

All documents, which for the purpose of the contract are defined to include, but not be limited to, reports, plans, subject data (“subject data” is defined as all information, whether or not copyrighted, that is compiled or delivered or specified to be compiled or delivered under this contract), drawings, studies, specifications, memoranda, estimates and computations secured by and for the Contractor in the prosecution of the resultant contract, shall become and remain the property of VDOT during and upon termination or completion of the work. VDOT shall have the right to use such documents for any public purpose without compensation to the Contractor, other than as hereinafter provided. If VDOT uses the documents for a purpose other than that for which this contract is executed, such use shall be at the risk of VDOT.

Except for its own internal use, the Contractor shall not publish or reproduce documents, in whole or in part in any manner or form, nor shall the Contractor authorize others to do so without the written consent of VDOT.

VDOT reserves the right to publish initially all documents. The Contractor shall not release or publish any documents without the prior written approval of the Natural Resource Program Manager in VDOT’s Central Office. Neither the Contractor, nor any subcontractor or any agents, employees nor subcontractors thereof, shall publish, participate in the publication of, or make oral presentations regarding any documents, information or material relating to any project Task Order, either during or after the term of this contract, without specific prior written consent of the Natural Resource Program Manager in VDOT’s Central Office. Any releases to the news media must be approved in writing by, and released through VDOT’s Public Affairs Division, after written approval by the Natural Resource Program Manager in VDOT’s Central Office.

No documents produced as part of this Agreement, and in whole or part with public funds, shall be copyrighted by the Contractor. If a project uses federal funds, any final report shall contain the following:

- a. An acknowledgment, “Prepared in cooperation with the U.S Department of Transportation, Federal Highway Administration and the Virginia Department of Transportation”;
- b. A disclaimer, “The contents of this report reflect the view of the Contractor/Consultant who is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration or the Virginia Department of Transportation. This report does not constitute a standard, specification or regulation”;
- c. A statement, if published by either VDOT or the Contractor/Consultant, giving credit to all participating agencies. In the event VDOT does not subscribe to the conclusions of the report, the following statement shall be added: “The opinions, findings, and conclusions expressed in this publication are those of the authors and do not necessarily represent those of the Virginia Department of Transportation.”

2. **Changes to the rates on the Price Schedule** may only occur annually on the anniversary date of contract execution. Said rates may be revised by mutual agreement of VDOT and the Contractor sixty (60) days prior to the contract anniversary execution date under the terms and conditions of

the original contract except as stated in a. and b. below. The Contractor shall convey (in writing) its request to raise/lower prices to the Department no later than 60 days prior to the anniversary date of the contract. Applications for price increases shall be substantiated in writing with the request. VDOT shall have sole discretion in its decision to allow price increases.

- A. If VDOT elects to exercise the option to increase rates for an additional one-year period (contract year #2), the contract price(s) for the increase shall not exceed the contract price(s) of the original contract increased/decreased by more than the percentage increase/decrease of the Services Category of the CPI-W section of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.
 - B. If during the first one-year rate increase, VDOT elects to exercise the option to increase rates in the contract for the second additional one-year period (contract year #3), the contract price(s) for the second additional increase shall not exceed the contract price(s) of the first rate adjustment increased/decreased by more than the percentage increase/decrease of the Services Category of the CPI-W section of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.
3. **VDOT requires any and all appropriate licensure, certification, and/or credentials** required for each individual Task Order. Contractor must submit copies of appropriate licensure, certification, and/or credentials with the response to any Task Order.
4. **INSURANCE COVERAGES AND LIMITS REQUIRED:**
5. **SWAM Reporting and Delivery Requirements:** The Contractor shall provide to VDOT, in a form as required by VDOT, documentation that the Contractor has utilized SWAM in accordance with the Contractor's SWAM utilization plan (Attachment C of the RFP). Said documentation shall be provided semi-annually or as required by VDOT.
6. **ADDITIONAL USERS OF CONTRACT:** It is VDOT's intent, on behalf of the Secretary of Transportation and all agencies/facilities within the Transportation Secretariat (to include VDOT, Virginia Department of Rail and Public Transportation, Virginia Department of Aviation, Virginia Department of Motor Vehicles, the Virginia Port Authority and the Chesapeake Bay Bridge-Tunnel), access to VDOT agreements and to provide Contractors with opportunities to do business with these agencies.

To that end, and if agreeable with the Contractor, the following agencies within the Transportation Secretariat (to include VDOT, Virginia Department of Rail and Public Transportation, Virginia Department of Aviation, Virginia Department of Motor Vehicles and the Virginia Port Authority) may have access to any agreement resulting from this solicitation.
7. **ADVERTISEMENT:** In the event a contract is awarded for supplies, equipment, or services resulting from this proposal, no indication of such sales or services to the Department of Transportation will be used in product literature or advertising without prior written approval and approval from VDOT.
8. **ANNOUNCEMENT OF AWARD:** Upon the award or the announcement of the decision to award a contract as a result of this solicitation, the VDOT Administrative Services Division will publicly post such notice on Public Posting Board in the 1st Floor Conference Room of 1201 East Broad Street for a minimum of 10 days.

9. **ASBESTOS:** Whenever and wherever, during the course of performing any work under this contract, the Contractor discovers the presence of asbestos, or suspects that asbestos is present, he shall stop the work immediately, secure the area, notify the Building Owner and await positive identification of the suspect material. During the downtime in such a case, the Contractor shall not disturb any surrounding surfaces but shall protect the area with suitable dust covers. In the event the Contractor is delayed due to the discovery of asbestos or suspected asbestos, then a mutually agreed upon extension of time to perform the work shall be allowed the Contractor but without additional compensation due to the time extension.
10. **CLAIMS:** The Contractor shall be responsible for resolution of any and all claims resulting from work performed under this contract. Claims made to VDOT under this contract will be referred to the Contractor for handling. Failure to properly respond to and resolve property damage and claims constitutes unsatisfactory performance and may result in cancellation of the contract.
11. **CONTRACTOR'S TITLE TO MATERIALS:** No materials or supplies for the work shall be purchased by the Contractor or by any Sub-Contractor subject to any chattel mortgage or under a conditional sales or other agreement by which an interest is retained by the seller. The Contractor warrants that he has clear title to all materials and supplies for which he invoices for payment.
12. **CONTRACTOR'S QUALIFICATIONS/RESPONSIBILITIES:**
 - A. Contractor agrees that competent, experienced and qualified staff properly trained and certified for the type of work described in this RFP shall perform all work.
 - B. The Contractor shall assign a person as the Contractor's Representative who will have the authority to execute this contract work. The person's name and phone number and an alternate representative's name and phone number shall be provided to VDOT in the Offeror's proposal, or within ten (10) days following award of the contract.
13. **DAMAGES:** It is the Contractor's responsibility to repair any property damage caused in the performance of this contract. Repairs will be made to VDOT's satisfaction.
14. **DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION:** It is the policy of the Commonwealth of Virginia to contribute to the establishment, preservation, and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in State procurement activities. The Commonwealth of Virginia encourages Offerors to provide for the participation of small businesses owned by women and minorities through partnerships, joint ventures, subcontract and other contractual opportunities. Submission of a report for utilizing the goods and services of such businesses and plans for involvement on this contract is required. By submitting a proposal, Offerors certify that all information that is provided in response to this RFP is true and accurate. All information requested by this RFP on the ownership, utilization, and planned involvement of small business, women-owned business and minority-owned business must be submitted. In order to be considered for selection, the primary Offeror shall complete and include a copy of Attachment C with their proposal.
15. **INTELLECTUAL PROPERTY RIGHTS:** The Virginia Department of Transportation shall have exclusive rights to all data and intellectual property generated in the course of the project. ("intellectual property", includes all inventions subject to the U. S. Patent System. This shall be inclusive but not limited to, new processes, materials, compounds and chemicals, and all creations subject to the U. S. Copyright Act of 1976, including but not limited to printed material, software, drawings, blueprints, and compilations such as electronic databases.) Furthermore, VDOT shall have all rights, title, and interest in or to any invention reduced to practice pursuant to a resulting contract. Proposals should recognize the requirements of public sector agencies and of public policy generally, including the Freedom of Information Act, State statutes and agency rules on release of public records, and data confidentiality.

All copyright material created pursuant to this contract shall be considered work made for hire and shall belong exclusively to VDOT. Neither VDOT, nor the Contractor intends that any copyright material created pursuant to the contract, together with any other copyright material with which it may be combined or used, be a “joint work” under the copyright laws. In the case that either in whole or part of any such copyright material not be deemed work made for hire, or is deemed a joint work, then Contractor agrees to assign and does hereby irrevocably assign its copyright interest therein to VDOT. VDOT may reasonably request documents required for the purpose of acknowledging or implementing such assignment.

The Contractor warrants that no individual, other than regular employees and Sub-Contractors of the Contractor or VDOT regular employees working within the scope of their employment, shall participate in the creation of any intellectual property pursuant to the contract. If this situation should arise, such individual and his or her employer, if any, must agree in writing to assign the intellectual property rights, as described herein, for work performed under this contract to VDOT either directly or through the Contractor.

VDOT shall have all rights, title and interest in or to any invention reduced to practice pursuant to this contract. The Contractor shall not patent any invention conceived in the course of performing this contract.

The Contractor hereby agrees that, notwithstanding anything else in this contract, in the event of any breach of this contract by VDOT, the remedies of the Contractor shall not include any right to rescind or otherwise revoke or invalidate the provisions of this section. Similarly, no termination of this contract by VDOT shall have the effect of rescinding the provisions of this section.

VDOT is only entitled to the intellectual property rights for deliverables and associated documentation produced by the Contractor for which VDOT has fully paid the Contractor as the contract is completed or as the contract is terminated for any reason.

Copyright or pre-existing work of the Contractor shall remain the property of the Contractor. The Contractor grants to VDOT a perpetual, royalty-free, irrevocable, worldwide, non-exclusive license to use such pre-existing work in connection with exercising the rights of ownership granted to VDOT pursuant to this section.

Notwithstanding anything herein to the contrary, VDOT acknowledges that as part of the Contractor’s provision of services hereunder, the Contractor may license third-party software or acquire proprietary works of authorship (collectively referred to as “products”), which have been developed by third parties. VDOT must approve the third-party license agreements and the acquisition of these third-party products prior to their use by the Contractor and VDOT agrees that these products will remain the sole property of the third party.

The Contractor shall grant VDOT license to use all software developed by the Contractor under this contract in other applications within Virginia as VDOT sees fit. Should the Contractor desire to re-use software developed under this contract for other projects (both VDOT contracts and others), VDOT must be notified in writing 60 days prior to such use. Furthermore, VDOT shall be justly compensated for the re-use of such software. Compensation shall be negotiated and agreed upon prior to VDOT releasing software rights. Typically, VDOT prefers increased software capabilities and/or functionality instead of monetary compensation.

16. MANNER OF CONDUCTING WORK AT JOB SITE: All work shall be performed according to the standard of industry and to the complete satisfaction of VDOT.

- a. Personnel used by the Contractor for the performance of this work shall be properly trained and qualified for work of this type to the satisfaction of VDOT and shall possess any required licenses, certifications, and qualifications.

- c. The Contractor shall be responsible for the conduct of all personnel while at the job site. All personnel involved with the work shall obey all rules and regulations of VDOT.
- d. Sexual Harassment of any employee, VDOT or Contractor, will not be tolerated and is to be reported immediately to the VDOT Representative.

All work to be conducted by the Contractor in any facility shall be coordinated in advance with the VDOT Project Manager. The Contractor shall coordinate his/her work efforts with (if applicable) other existing Contractor/agency work efforts through the VDOT Project Manager. All Contractor work shall take place on non-holiday weekdays between the hours of 8:00 A.M. and 5:00 P.M, unless otherwise approved by the VDOT Project Manager.

- 17. **POLICY OF EQUAL EMPLOYMENT:** VDOT is an equal opportunity/affirmative action employer. Women, Minorities, persons with disabilities are encouraged to apply. VDOT encourages all vendors to establish and maintain a policy to insure equal opportunity employment. To that end, Offerors should submit along with their proposals, their policy of equal employment.
- 18. **PROPOSAL ACCEPTANCE PERIOD:** The proposal shall be binding upon the Offeror for one hundred-twenty (120) days following the proposal due date. If the proposal is not withdrawn at that time, it remains in effect until an award is made or the solicitation is canceled. Every effort will be made by VDOT to provide status information during the selection process.
- 19. **CONTRACTOR RESPONSIBILITIES:** All refuse brought onto a site or private property will be removed and properly discarded by the Contractor. All property conditions will be reclaimed according to their pre-investigation conditions unless otherwise agreed to by the property owner and by VDOT. Test holes and other excavations will be properly refilled to original grade. During and at completion of the work, the Contractor shall prevent site soil erosion, the runoff of silt and/or debris carrying water from the site, and the blowing of debris off the site in accordance with the applicable requirements and standards of the *Virginia Erosion and Sediment Control Handbook*, (<http://www.virginiadot.org/business/locdes/vpdes-vdotescswmpgms.asp>) latest edition.

The Contractor shall be responsible both directly and through its Sub-Contractor(s), to take every precaution at all times for the protection of persons and property that may be affected by the Contractor's operation in connection with the work. The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia, issued by the Department of Labor and Industry under Title 40.1 of the *Code of Virginia* shall apply to all work under this contract.

- 20. **PROPOSAL PRICES:** Price proposal *shall* be in the form of a fixed rate for equipment and experienced personnel and *shall* include all labor, supervision, and incidental costs necessary to complete the work. Price proposal *shall not* change for work performed on a weekend, night work, or for any hours worked beyond a normal 40-hour week. Multiple pricing proposals may be submitted by an Offeror (e.g. the Contractor has multiple third party contractors available to provide requested solutions).
- 21. **SUBCONTRACTS:** No portion of the work shall be subcontracted without prior written consent of VDOT. In the event that the Contractor desires to subcontract some part of the work specified herein, the Contractor shall furnish VDOT with the names, qualifications and experience of their proposed Sub-Contractors in writing. The Contractor shall, however, remain fully liable and responsible for the work to be done by its Sub-Contractor(s) and shall assure compliance with all requirements of the contract. No Sub-Contractor will be allowed to start work until the VDOT Representative has

- received a copy of their Certificate of Insurance with the appropriate liabilities and coverage's and provided the Contractor and sub-contractor with written approval.
22. **TERM OF CONTRACT:** **TERM OF CONTRACT:** The initial term or period of the contract shall be for a one year (12 month) period with the effective date to be determined at time of award.
23. **RENEWAL OF CONTRACT:** This contract may be renewed by VDOT for two (2) additional optional years, under the same terms and conditions of the original contract except as stated in B. below. Price increases may be negotiated only at the time of renewal. The Contractor shall convey, in writing, its offer to renew the contract or increase/decrease prices to the Contract Administrator or Purchasing Officer no later than 60 days prior to the expiration of each contract period. Requests for price increases shall be substantiated in writing with detailed justification. VDOT shall have sole discretion in its decision to renew the contract or allow price increase/decrease.
- A. Prices shall remain fixed during the original term of the contract period. Price increases will only be considered at time of renewal as stated above.
 - B. If VDOT elects to exercise the option to renew the contract, prices may be increased/decreased by no more than the percentage increase/decrease of the Services Category of the CPI-W section, Table 4 of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.
24. VDOT reserves the right to approve any personnel or subcontractors proposed for the work described in this RFP and/or any subsequent contract resulting from this RFP. VDOT will provide written justification to the Contractor when approval is not granted.
25. VDOT will provide the Contractor and/or subcontractors with copies of all written approvals.
26. **ESTIMATED QUANTITIES:** Estimated quantities provided within are reflective of past usage and proposed usage only. Factors that may contribute to the actual quantities, frequencies of service and/or level of include, but are not limited to, Executive Orders, Department directives affecting changes in funding allocated for the services described in this solicitation. The quantities are estimates only and VDOT does not guarantee that the contractor will perform the estimated quantities. At VDOT's sole discretion, any or all of the quantities may be eliminated and by signing this bid/offer, the Offeror/offeror agrees that no claims for contractor costs or damages will be allowed for a decrease or elimination of the estimated quantities.
27. **eVA BUSINESS-TO-GOVERNMENT CONTRACTS AND ORDERS:** The solicitation/contract will result in multiple eVA purchase orders with the eVA transaction fee specified below assessed for each order.
- a. For orders issued prior to July 1, 2006, the Vendor Transaction Fee is 1%, capped at a maximum of \$500 per order.
 - b. For orders issued July 1, 2006 and after, the Vendor Transaction Fee is:
 - i. DMBE-certified Woman-Owned Businesses: 1%, capped at \$500 per order.
 - ii. DMBE-certified Minority-Owned Businesses: 1%, capped at \$500 per order.
 - iii. Other Businesses not specified in i. or ii. above: 1%, capped at \$1,500 per order.

The eVA transaction fee will be assessed approximately 30 days after each purchase order is issued. Any adjustments (increases/decreases) will be handled through eVA change orders.

Internet electronic procurement solution, web site portal www.eVA.virginia.gov, streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies.

Vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution and agree to comply with the following:

If this solicitation is for a term contract, failure to provide an electronic catalog (price list) or index page catalog for items awarded will be just cause for the Commonwealth to reject your bid/offer or terminate this contract for default. The format of this electronic catalog shall conform to the eVA Catalog Interchange Format (CIF) Specification that can be accessed and downloaded from www.eVA.virginia.gov. Contractors should email Catalog or Index Page information to eVA-catalog-manager@dgs.virginia.gov.

28. Adding Software/Training/Consulting

If VDOT acquires additional software, VDOT *shall* have the option to add the additional items to the contract at a discount equivalent to that offered on the contract-listed software and at a cost prorated for the remainder of the billing cycle.

29. Certification Testing Period – Systems

The system specified in the contract *shall* be considered ready for testing upon receipt of documentation from the Contractor specifying that a successful system audit or diagnostic test was performed at the site demonstrating that the system meets the minimum design/performance capabilities stipulated in the purchase agreement. Upon request, the procuring agency *shall* provide written confirmation of its acceptance following successful completion of the certification period. Such acceptance *shall not* be conclusive of complete conformance in all respects to the contract specifications and other requirements or the nonexistence of potential latent defects.

30. Confidentiality (Commonwealth)

The Commonwealth agrees that neither it nor its employees, representatives, or agents shall knowingly divulge any proprietary information with respect to the operation of the software, the technology embodied therein, or any other trade secret or proprietary information related thereto except as specifically authorized by the Contractor in writing or as required by the Freedom of Information Act or similar law. It *shall* be the Contractor's responsibility to fully comply with § 11-52 D of the Code of Virginia. All trade secrets or proprietary information *must* be identified in writing or other tangible form and conspicuously labeled as "proprietary" either prior to or at the time of submission to the Commonwealth.

31. Confidentiality (Contractor)

The Contractor assures that information and data obtained as to personal facts and circumstances related to clients *shall* be collected and held confidential during and following the term of this agreement and *shall not* be divulged without the individual's and the agency's written consent. Any information to be disclosed, except to the agency, *must* be in summary, statistical, or other form which does not identify particular individuals. Contractors and their employees working on this project *shall* be required to sign the *confidentiality statement* in this solicitation.

32. Contractor's Title to Materials

No materials or supplies for the work shall be purchased by the Contractor or by any subcontractor

subject to any chattel mortgage or under a conditional sales or other agreement by which an interest is retained by the seller. The Contractor warrants that they have clear title to all materials and supplies for which they invoice for payment.

33. Credit/Refund for Removed Items

VDOT, at its discretion, may remove items from the agreement with thirty days written notice and receive a credit or refund for those items through the billing period.

34. Definition – Software

As used herein, the terms software, product, or software products *shall* include all related materials and documentation whether in machine-readable or printed form.

35. Latest Software Version

Any software product(s) provided under the contract *shall* be the latest version available to the public as of contract award.

36. Non-visual Access to Technology

All information technology which, pursuant to this Agreement, is purchased or upgraded by or for the use of any State agency or institution or political subdivision of the Commonwealth (the "Technology") *shall* comply with the following non-visual access standards from the date of purchase or upgrade until the expiration of this Agreement:

Effective, interactive control and use of the Technology *shall* be readily achievable by non-visual means.

The Technology equipped for non-visual access *shall* be compatible with information technology used by other individuals with whom any blind or visually impaired user of the Technology interacts.

Non-visual access technology *shall* be integrated into any networks used to share communications among employees, program participants, or the public.

The technology for non-visual access *shall* have the capability of providing equivalent access by non-visual means to telecommunications or other interconnected network services used by persons who are not blind or visually impaired.

Compliance with the foregoing non-visual access standards *shall not* be required if the head of the using agency, institution, or political subdivision determines that (i) the Technology is not available with non-visual access because the essential elements of the Technology are visual and (ii) non-visual equivalence is not available. Installation of hardware, software, or peripheral devices used for non-visual access is not required when the Technology is being used exclusively by individuals who are not blind or visually impaired. However, applications programs and underlying operating systems (including the format of the data) used for the manipulation and presentation of information *shall* permit the installation and effective use of non-visual access software and peripheral devices. If requested, the Contractor *must* provide a detailed explanation of how compliance with the foregoing non-visual access standards is achieved and a validation of concept demonstration. The requirements of this Paragraph *shall* be followed to achieve full compliance with the Information Technology Access Act, §§ 2/1-807 through 2.1811 of the Code

of Virginia.

37. Product Substitutions

During the term of any contract resulting from this procurement, the vendor is not authorized to substitute any item for that product and/or software identified in the solicitation without the prior written consent of the VDOT Representative.

38. Proposal Acceptance Period

The proposal *shall* be binding upon the Offeror for one hundred and twenty days following the proposal due date. If the proposal is not withdrawn at that time, it remains in effect until an award is made or the solicitation is canceled. Every effort shall be made by VDOT to provide status information during the selection process.

39. Third Party Acquisition of Software

The Contractor *shall* notify the procuring agency in writing should a third party acquire its property, associated business, or all of its assets. The Contractor further agrees that the contract's terms and conditions- including all license rights and related services- *shall not* be affected by the acquisition. Prior to completion of the acquisition, the Contractor *shall* obtain- for the Commonwealth's benefit- and deliver thereto the assignee's agreement to fully honor the terms of the contract.

40. Title to Software

By submitting a proposal, the Offeror represents and warrants that it is the sole owner of the software or, if not the owner, that it has received all legally required authorizations from the owner to license the software, has the full power to grant the rights required by this solicitation, and that neither the software nor its use in accordance with the contract shall violate or infringe upon any patent, copyright, trade secret, or any other property rights of another person or organization.

41. Warranty Against Shutdown

The Contractor warrants that the software provided under the contract *shall not* contain any lock, counter, CPU reference, virus, worm, or other device capable of halting operations or erasing or altering data or programs. Contractor further warrants that neither it, nor its agents, employees, or subcontractors shall insert any shutdown device following delivery of the equipment and software.

42. Replacement Software

All Contractor-provided replacement software is to be included in the contract at no additional cost to VDOT.

43. Adding Software Maintenance

If VDOT acquires additional software, VDOT *shall* have the option to add the additional items to the contract at a discount equivalent to that offered on the contract-provided software and at a cost prorated for the remainder of the billing cycle.

44. Identification of Proposal Envelope

If a special envelope is not furnished or if return in the VDOT-furnished envelope is not possible, the signed proposal should be returned in a separate, sealed envelope or package and identified in the following way:

From:
Name of Offeror:
Opening Time:
Opening Date:
Offeror Address:
Proposal Number:
Proposal Title:
Name of Contractor Officer or Buyer:

The envelope should be addressed as directed on Page 2 of this RFP.

If a proposal not contained in the special envelope is mailed, the Offeror takes the risk that the envelope- even if marked as described above- may be inadvertently opened and the information compromised, which may cause the offer to be disqualified. Proposals may be hand delivered to the designated location in the office issuing the solicitation. **No other correspondence or other proposals should be placed in the envelope.**

45. Warranty (Commercial)

The Contractor agrees that the goods or services furnished under any award resulting from this solicitation *shall* be covered by the most favorable commercial warranties, such as those that the Contractor provides to any customer for identical goods or services. The Contractor also agrees that the rights and remedies provided therein are in addition to and do not limit those available to the Commonwealth by any other clause of this solicitation. A copy of this warranty should be furnished with the Offeror's proposal.

46. Source Code

In the event the Contractor ceases to maintain experienced staff and the resources needed to provide required software maintenance, the Commonwealth *shall* be entitled to have, use, and duplicate for its own use a copy of the source code and associated documentation for the software products covered by the contract. Until a complete copy of such material is provided, the Commonwealth *shall* have exclusive right to possess all physical embodiments of such Contractor-owned materials. The rights of the Commonwealth in this respect *shall* survive for a period of twenty years after the expiration or termination of the contract. All lease and royalty fees necessary to support this right are included in the initial license fee as contained in the pricing schedule.

47. Term of Software License

Unless otherwise stated in the solicitation, the software license(s) identified in the pricing schedule *shall* be purchased on a perpetual basis and *shall* continue in perpetuity. However, the Commonwealth reserves the right to terminate the license at any time, although the mere expiration or termination of this contract *shall not* be construed as intent to terminate the license. All acquired license(s) *shall* be for use at any computing facilities, on any equipment, by any number of users, and for any purposes for which it is procured. The Commonwealth further reserves the right to transfer all rights under the license to another state agency to which some or all of its functions are transferred.

48. Warranty of Software

The Contractor warrants the operation of all software products for a period of twelve months from the date of acceptance. During the warranty period, the Contractor *shall* provide toll-free phone support and all patches, fixes, revisions, updates, upgrades, and minor releases to both

the software and its supporting documentation.

49. Product Substitutions

During the term of any contract resulting from this procurement, the vendor is not authorized to substitute any item for that product and/or software identified in the solicitation without the prior written consent of the VDOT Representative.

50. Termination

If the Contractor fails to provide quality goods or services in a professional manner and in accordance with applicable laws, regulations or bid provisions, solely as determined by VDOT and, upon receipt of notice from VDOT does not correct the deficiency within a reasonable period of time (not to exceed seven calendar days unless otherwise agreed to by VDOT), VDOT reserves the right to terminate the contract by giving written notice to the Contractor. Upon termination, VDOT may procure the services from another contractor in accordance with the terms of Paragraph 20, General Terms and Conditions.

51. Service Reports

Upon completion of any maintenance call, the Contractor *shall* provide the VDOT Representative with a signed service report that includes, at a minimum the following: a general statement as to the problem, action taken, any materials or parts furnished or used, and the number of hours required to complete the repairs.

52. Qualified Repair Personnel

All warranty or maintenance services to be performed on the items specified in this solicitation as well as any associated hardware or software *shall* be performed by qualified technicians properly authorized by the manufacturer to perform such services. VDOT reserves the right to require proof of such certifications prior to award and at any time during the term of the contract.

53. Travel

The Contractor *shall* be responsible for all travel costs, labor, parts, and incidentals associated with maintenance service visits.

54. Limitation of Use

The Commonwealth's right to use computer software developed entirely at private expense may be limited by the Contractor as stipulated in this contract. Notwithstanding any provision to the contrary, however, the Commonwealth *shall* have at a minimum the following:

- Unlimited use of the software on the equipment for which it is purchased.
- Use of the software on a secondary system for backup purposes should the primary system become unavailable, malfunction, or is otherwise rendered inoperable.
- Use of the software at another Commonwealth site should the system be entirely transferred to that location.
- The right to make a backup copy for safekeeping.
- The right to modify or combine the software with other programs or materials at the Commonwealth's risk.
- The right to reproduce all documentation provided such reproduction is for the sole use of the Commonwealth.

These rights are perpetual and irrevocable and in the event of any actual or alleged breach by the Commonwealth, the Contractor's sole remedy shall be to pursue a monetary claim in accordance with § 11-69 of the Code of Virginia.

ATTACHMENT C
PLANNED SWAM/DBE PARTICIPATION DATA SHEET

1. PARTICIPATION BY SWAM

A. Offeror certifies that it () is, () is not a small business concern. For the purpose of the procurement, a SWAM concern, including its affiliates, which is independently owned and operate, is not dominant in the field of operation in which it is contracting and can further qualify under the criteria concerning number of employees, average annual receipts, or other criteria, as prescribed by the Virginia Department of Minority Business Enterprises (DMBE).

B. List SWAM businesses with which the Offeror proposed to include in this contract.

ATTACHMENT C

PLANNED SWAM/DBE PARTICIPATION DATA SHEET

COMPANY DATA	COMPANY NAME		CONTRACT BID NAME & NUMBER			
	CONTACT NAME	PHONE	FAX	EMAIL		
	SWAM CERTIFIED? <input type="checkbox"/> Y / <input type="checkbox"/> N		DBE CERTIFIED? <input type="checkbox"/> Y / <input type="checkbox"/> N		CERTIFICATION #	
	It is the policy of the Commonwealth of Virginia to contribute to the establishment, preservation, and strengthening of SWAM businesses and to encourage their participation in State procurement activities. The Commonwealth encourages Offerors to provide for the participation of SWAM businesses through partnerships, joint ventures, subcontract and other contractual opportunities.					
DBE/ SMALL/ WOMAN/ MINORITY	SUBCONTRACTOR NAME ADDRESS	PHONE #	SCOPE OF WORK ON CONTRACT	VALUE OF SUB-AGREEMENT	DBE CERTIFIED	SMALL, WOMAN OR MINORITY?
	(SAMPLE) I. M. Goode Company 1919 Mockingbird Lane Ourville, Virginia 23668	(804) 222-1234	Hazardous Waste Disposal	123,987	no	Minority
			TOTAL \$ >>>			

THE UNDERSIGNED AFFIRMS THAT THE INFORMATION SUBMITTED ABOVE IS TRUE TO THE BEST OF HIS OR HER KNOWLEDGE AND UNDERSTANDS THE NATURE OF THIS CONTRACT AND THE REGULATIONS THAT APPLY.

SIGNATURE OF AUTHORIZED OFFICIAL _____ DATE _____

MONTHLY SWAM / DBE REPORT

[illegible]

